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SHEEP AND SHEEPMEN OF CANTERBURY

Grasmere Homestead, Cass, 1944. [Photo: John Pascoe

SHEEP
and
SHEEPMEN
OF CANTERBURY
1850-1914

By

Sheila S. Crawford

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Foreword

MISS CRAWFORD'S book appears when the people of Canterbury are preparing to celebrate the completion of the first centenary of the Province. It is a time when every citizen should welcome a work designed in large measure to show how and why our ways of life originated and have developed over the four generations since the inception of the settlement. It will help him, not only to a clearer view of those forces that have been operating through the basic industry of the country to shape his life, but also to a deeper understanding of the intimate connection between present tendencies and the future. This book is, I believe, the first attempt to provide in small compass a comprehensive survey of that industry which has most closely affected directly and indirectly the general welfare of the people. Miss Crawford's own personal contacts with farming in Canterbury as well as her intensive research into unpublished sources and the literature of her subject, her just appreciation of its national importance, and her recognition that its influence permeates all parts of the national economy have combined to produce a work which can justly demand the attention of all sections of the community.

J. HIGHT.

Christchurch,
March, 1949.

To my Mother, and the Pioneer Women of New Zealand
who with faith and courage made homes for
future generations.

Preface

"Only in the wash of time . . . .
. . . . can earth and man into understanding grow
And to common instinct come."

—Brasch.

AFTER breaking their ties with their native soil in the Old Country our forefathers came to New Zealand to break in the land and carve out homes. In their choice of house, roads and type of agriculture they were restricted by such natural factors as position, land forms, climate and vegetation. Yet within these limits they were free to appraise the resources of the land, spread themselves through it and fill it with works that expressed their particular way of life. Under their hands the natural landscape was gradually changed, but did the landscape have no effect on them? After sweating and toiling in this new country, did they die as strangers in a strange land? Or did they and their sons, by loving and understanding the land of their adoption, become part of its very substance?

Although "we have no ancient landscapes strewn with the memorials of past ages," yet every field where sheep and cows graze or where golden wheat ripens for harvest, every homestead, every city is a memorial worthy of pride. Thus in "Sheep and Sheepmen of Canterbury," I have tried to trace the history of sheepfarming and show how it has influenced both the land and the life of the people.

In area, I have confined myself to the Canterbury Plains and adjacent mountainous region and have dealt only incidentally with Banks Peninsula, since it constitutes a separate region both from its structure, land forms, natural vegetation and the history of its development. In time I have confined myself to the period 1850-1914, during which the most significant changes in the sheepfarming industry occurred.

ACKNOWLEDGMENTS

I would like to express my gratitude to all those who have assisted me in this work; especially to Sir James Hight, the late Mr L. G. D. Acland and Mr D. MacMillan who have shown great willingness in helping me, to Mr J. Harris of the Hocken Library, Dr. Falla of the Christchurch Museum, Mr L. Harding of the Lands and Survey Dept., Mr D. Rutherford of Morna Hills, Mr W. A. Kennedy, Mr G. C. Heron of the Turnbull Library, the staff of Canterbury Public Library and all others who have assisted me with written material and photographs.

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CHAPTER I

The Natural Landscape

The Canterbury Plains: Form, Structure, Climate and Vegetation.

WHAT picture greeted the eager eyes of the first settlers when they paused for breath at the top of the Bridle Path and gazed at their new home? As far as the eye could see vast level plains extended; here and there rivers gleamed in the sunshine, and in the dim distance range upon range of majestic mountains towered into the blue heavens. From the mountain gorges, mighty rivers burst forth on to the plains, thence flowing to the sea in wide shingly beds. When the snow melts, these comparatively narrow channels of water are transformed into torrents of muddy water which are quite impassable on horseback. Although most of the rivers come from the snowy mountains, some are rain rivers, or others, like the Avon, rise from springs so do not become turbid or flooded.

Since the plains are "such a distinctive feature of the land surface of the district, the source of its chief wealth and the real reason for its being a home for men" it is desirable to say something of their formation. They comprise "an immense lens shaped alluvial deposit tapering off to the north and south,"[1] formed by vast overlapping fans of great glacier streams. According to their structure the plains may be divided into four areas, the barren unproductive shingly river beds, the upper fans where the soil is stony, porous, and arid, and where the vegetation is scanty and powerless to protect the finer silts from the nor'west winds, the interfan depressions where rich silt and swamp deposits are found, and finally the rich coastal lowlands.

Climate affects man indirectly through its influence on the nature and economic possibilities of his habitat. The variations of the seasons largely determine the farmer's calendar, and the local conditions of temperature and rainfall set limits to the natural vegetation, the food and raw

materials which can be produced. Canterbury, lying in the zone of the westerly winds, has a cool, temperate, insular climate, though in the interior basins of Hanmer and Mackenzie it is more continental. Christchurch enjoys an average rainfall of 24.99 inches, fairly evenly distributed throughout the year, as there are 124.8 days with rain in an average year. The mean actual temperature is 51.9°F., the average monthly temperature ranging from 60.4°F. for the hottest month, January, to 36.6°F. for the coldest, July, and there are 1945.1 hours of sunshine. However, there is much variety in conditions both in different places and in different seasons. Places nearer the mountains have more rain, and those on the sea coast have less sunshine. Near Timaru, between 1890 and 1915 the average rainfall was 26.19, the driest season was 1890 with 15.1 inches and the wettest 1899 with 37.07 inches. Snow falls on the summits of the ranges about thirty days a year, and on the high country and on the foot hills it falls from seven to fifteen days. The prevailing winds are N.E., S.E., S.W., and N.W., and of these the last two are the most important. The sou'wester brings the bad weather, and the nor'wester, a hot dry fohn wind is probably the most unpleasant feature of Canterbury's climate, especially in spring.

This nor'west wind is aptly described in the "Shagroon's Lament":

"Among the dreary mountains far above the gorge,
There lives a potent demon ever working at his forge,
A worker at the winds is he, a flatulent old buffer
He sends his manufactures down that man and beast may suffer.
I've witnessed all the winds that blow from Land's End to Barbadoes
Typhoons, pamperos, hurricanes like terrible tornadoes,
All these but gentle zephyrs are which pleasantly go by,
To the howling, bellowing horrid gusts sweeping down Rakaia.
They're armed with the winds of the wild west coast
Which they've cooled in the mountain snow
And they're riding down on their steeds of dust
Making dismal havoc below."

Stoddart

These parching nor'west winds cause rapid evaporation, and when they do not alternate with rain bearing southerly winds they frequently cause shortage of feed and light crops.

The high average, well distributed rainfall, limited

number of rain days, and the high number of sunshine hours tend to stimulate vegetation to all year growth except in the areas subject to many frosts and snow. This all-year growth of grass and the mild climate are especially important for pastoral industries as there is no need to house and stall feed cattle.

When the Pilgrims, accustomed to the green pastures of England, beheld the plains, a monotonous, almost treeless expanse of brown tussock, they were sadly disappointed and needed all the assurance of the Pre-Adamite settlers concerning its good qualities. With the exception of Banks Peninsula and patches of swamp forest at Riccarton, Papanui, Kaiapoi, Ohoka, Tuahiwi, and Rangiora, 55, 200, 200, 200, 500, and 500 acres respectively, one found no forest in Canterbury till in the mountainous region with its greater rainfall one reached the large areas of beech forest. The disadvantages arising from lack of timber were more than balanced by the advantage accruing to the settlers from their possession of a land, easily accessible, suitable for grazing cattle and sheep, comparatively easily broken up for cultivation, and undisturbed by a large Maori population and rival land claims. In the tussock steppe of Canterbury the taller and frequently unpalatable tussocks were not so valuable in themselves, but rather, because being adapted to resist the desiccating nor'-west winds they provided shelter for the finer grasses and herbs such as Danthonia pilosa and anise (Angelica montana). On the plains a low tussock grassland formation was found consisting of the poa tussock (Poa caespitosa) and fescue tussock (Festuca Novae Zealandiae), various other grasses, sedges, herbs and shrubs including danthonia, blue grass (Agropyron scabrum), the poisonous tutu (Coraria sarmentosa), the thorny matagouri (Discaria toumatu), the sharp pointed spear grass (Aciphylla Colensoi) and cabbage trees (Cordyline Australis). In the swampy districts there were flax (Phormium tenax), toe toe (Arundo corspicua) and raupo (Typha angustifolia). In the more mountainous regions there were tall tussocks such as red tussock and snow grass (Danthonia raoulii varieties rubra and flavescens) and the Spaniards were thicker and bigger.

CHAPTER II.

Man on the Scene—Pre-Adamite and Pilgrim

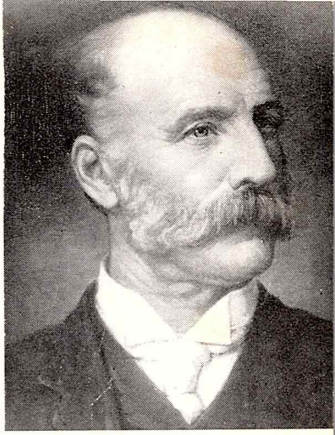
THE first settlers in Canterbury were the Maoris, who some hundreds of years ago arrived from Polynesia. They were a hunting and fishing people and did very little to alter the natural landscape except in the immediate vicinity of their kaika, where they cultivated such plants as kumaras. In 1850 the Maoris were not numerous and lived mainly at the heads of bays on Banks Peninsula, and near Kaiapoi and Arowhenua. The first white settlers were the shore whalers and runaways from ships who settled on Banks Peninsula from 1835 onwards. However, except for shooting pigeons, pig hunting, cutting timber, and bartering flax and spars they made no use of the land till the arrival in 1839 of W. B. Rhodes, a whaling master, who bought cattle from Australia and turned them out near Akaroa. In 1840 fifty-five French and six Germans arrived at Akaroa under the auspices of the Nanto-Bordelaise Company.

Though ill-equipped and miserably poor they courageously cleared patches of bush and started cultivating fields and making gardens. On their small holdings they grew wheat and all kinds of vegetables, and they planted willows, mulberries, walnuts and grape vines. The main contacts they had with the outside world were with the whalers who anchored their ships in the harbour and bought supplies of vegetables, butter and eggs. The arrival in 1843 of the Sinclair, Hay, Deans, Greenwood, Manson, Gebbie, Prebble and McQueen families, who started cattle rearing and dairying on Banks Peninsula, marked an advance in pastoral farming.

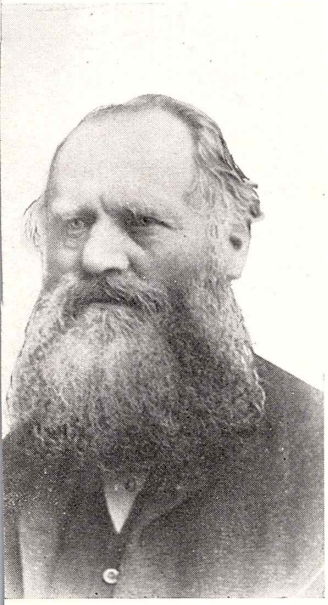
Alone the Deans ventured forth to the plains, and took up land at Riccarton, the fated scene of two previously unsuccessful attempts at utilising the land. In the earlier 1830's Messrs Cooper and Levy, a trading firm owning whaling and sealing vessels, purchased from the natives a large block of land on the plains, including both the

John Deans

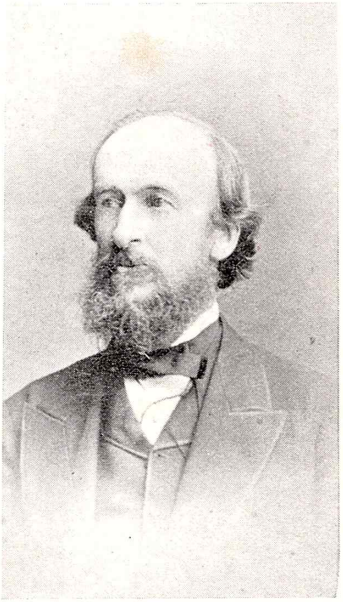
Charles George Tripp



W. E. Ivey

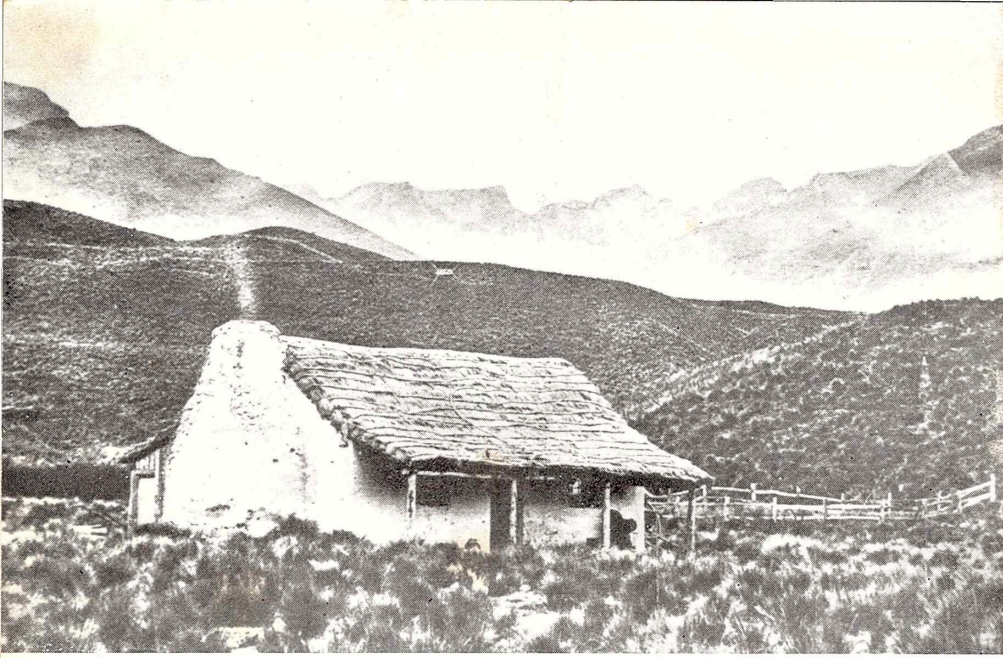


John Grigg

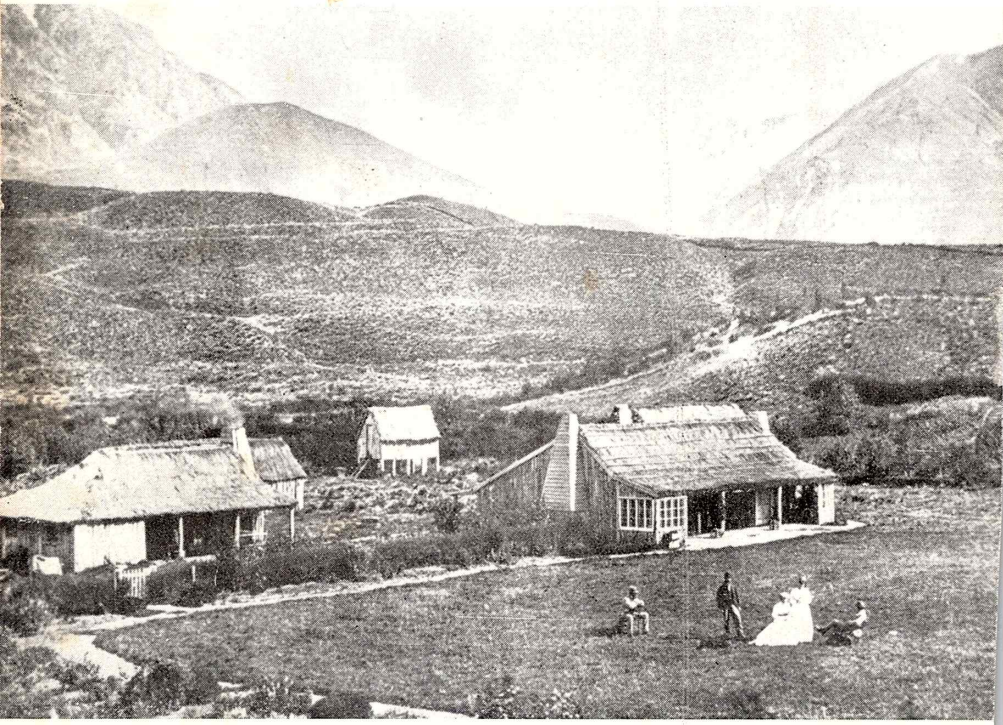


John Barton Acland

George Rhodes



Samuel Butler's cob hut at Mesopotamia.



A later view of Mesopotamia.

Riccarton and Papanui bush, besides land on the Peninsula. Unfortunately the ships despatched with men, stores and appliances to take possession of, and work the different properties, were lost and the scheme was abandoned. Another attempt was made by Messrs Abercrombie and Co., a Sydney firm which in 1840 had bought Riccarton from the Maoris. They sent over "Mr Malcolm McKinnon whom they landed with a team of bullocks, a dray and farming implements at the mouth of Lake Forsyth." Once again the loss of a ship with farm hands, and further implements and supplies, caused the project to be abandoned. All except Mr McKinnon and his family returned to Sydney, and they, finding the loneliness unbearable, fearing the Sumner bar and threatened by the Maoris, fled to Akaroa. However, Mr McKinnon has the honour of being the first in Canterbury to plough the land, to grow and to stack wheat (which the rats later devoured). However, the Deans have proved the truth of the saying, third time lucky, as they have prospered and part of the land at Riccarton still remains in the possession of the family. At this time Banks Peninsula had a scattered population. Except for the Deans at Riccarton and at Malvern, Capt. Mitchell at Mt. Grey, Hunter Brown at Double Corner, Robert Waitt at Teviotdale, and Macfarlane of Loburn, and the Greenwoods at Motunau (Stoneyhurst had been taken up by Clifford and Weld, but not occupied), the plains were unoccupied and waiting for the influx of Canterbury settlers. Great was the joy and expectation of these isolated Pre-Adamites when in December 1850, the "Charlotte Jane," "Randolph," "Sir George Seymour" and "Cressy" brought the Pilgrims to the Garden of Eden.

The struggle of the 1830 Theorists, Edward Gibbon Wakefield, Charles Buller and others, to rouse interest in planned colonisation, the establishment of the New Zealand Company in 1837 and of their settlements in Wellington, Taranaki, and Nelson, the social conditions in the England of the hungry forties, the awakening desire of the people to seek a new life in the colonies, all form the background to the formation in 1848 of the Canterbury Association for founding a Church settlement. It was the aim of the founders of Canterbury to send out to the

Antipodes a "complete segment of society to become the germ of a new nation," "a slice of England cut from top to bottom with the plums left in." "At the head of the Pilgrims stood an actual Bishop, behind him were a working clergy and schoolmasters, working landlords, working labourers, workers everyone." The whole system of the Canterbury Association depended on the sale of land in the Canterbury block which they had obtained from the New Zealand Company. Men of capital would buy large estates and form an aristocracy, and working men were to buy small parcels of land and become yeomen or peasants. Colonists were to be carefully selected to ensure that individuals of every class and profession were sent out in those proportions in which they ought to exist in a prosperous colonial community. From the immigration fund, by a system of assisted passages, the colony was to be supplied with a larger amount of free labour than hitherto procurable in recent British settlements. Moreover, concentration of population was to be achieved, not by precautions against hostile natives, but by the large sum of money required to be advanced in the purchase of every acre of land. The price of land was to be £3 an acre for rural, and town and suburban sections were to be sold at a higher price. Of each £3, 10/- was to go to the New Zealand Company to pay for the land, 10/- for surveys and the expenses of the Association, £1 for emigration and £1 for ecclesiastical and educational endowments. Every purchaser of freehold land was entitled to five times that amount of unappropriated land. These pastoral ranges were open for purchase, but the leaseholder had to be given 30 days' notice in order that he might purchase it himself if he desired.

The scheme attracted a very good type of emigrant, although some of the emigrants were hopelessly unsuited for colonial life and either fled Home or took shelter in the more mundane tasks of town life. Others were well educated, intelligent and endowed with great ability for doing the varied tasks that were necessary for the carving out of homes in the new land. "University scholars, and club men had to dig, chop, fetch water, work at hedging and ditching and build their own houses; while the ladies had to use their soft white hands in downright earnest household

work at the churn and washtub, and right well too did they perform these various and arduous duties, losing not one jot of their natural refinement, though few trained servants could have done the work better."

Both the founders of the settlement and the settlers were determined to set up an agricultural, self-supporting colony on the cultivation of freehold land. The Australian squatting system, which means renting the native pastures cheaply and running stock on them, was at first hateful to the Association and Pilgrims too, until they had learnt more about it.

CHAPTER III.

The Colonist Becomes a Sheep Farmer

SHEEP were first introduced into New Zealand, a country with no herbivorous animals, by Captain Cook on his second voyage in 1773. Out of the two rams and four ewes he bought from the Cape only a ram and ewe survived the voyage, and these met their death at Queen Charlotte Sound, probably by eating some poisonous plant. "Thus my hopes of stocking the country with a breed of sheep were blasted in a moment." In the 1820's Marsden brought over a Merino ram and four ewes from Sydney, and these animals were the originals of the first flock of sheep in New Zealand. However, the first considerable flocks were imported by Bidwill in 1843 and Charles Clifford in 1844 for his Wairarapa station. Three years later Clifford and his partner Weld drove sheep from Port Underwood to the plains north of Canterbury and by 1850 they had 11,000 sheep on their station at Flaxbourne.

The wide open tussock grasslands and the mild climate of Canterbury made it a veritable sheepman's paradise. Sheep, which were destined to transform the appearance of these tussock lands, were first introduced in 1843 by the Deans brothers. William Deans records this in one of his letters: "John arrived from New South Wales with cattle, etc., after a long and rough passage of twenty-one days, nevertheless only six steers and heifers died during the passage, though after landing, the weakness consequent on the tumultuous and stormy passage caused the death of twelve more, so that we now have left sixty-one head of cattle, three mares and forty-three sheep." Again in 1847 John Deans went to Sydney to purchase sheep; he chartered a vessel and got 600 on board, of which 46 were lost during a long and boisterous passage. But the Deans were rather unfortunate as they had a spell of bad weather and in one gale alone, 92 of these sheep, not yet accustomed to the fickle southern climate, died, and in all only 430 survived. In 1850 eight Durham bulls, 162 heifers, 12

mares, 600 maiden ewes and 11 first class rams "the best stock that were ever shipped from Australia" were imported. At their Purau station the Greenwoods had about 400 sheep in 1844, and they expected to have about 1,500 in the 1845 lambing season and to clip about 4,000 lbs. of wool for which they were offered to take it from the run, 1/- per lb., but they would not sell it for less than 13d. After selling the Purau station to the Rhodes, the Greenwood brothers in 1847 started the Motunau station mainly for rearing cattle and dairying, though they kept a few hundred sheep. On March 17, 1849, the cutter "Anne Sarah" landed ten rams which the Greenwoods had imported from England. In January 1850 Edward Greenwood let the station to John Caverhill and the livestock he delivered were 81 sheep, 474 lambs, 141 head of cattle, 40 pigs, three horses and a mule.

At first cattle were considered more valuable, but soon sheep came into their own. By 1845 William Rhodes had decided that sheep were more profitable than horses or cattle, and so he made arrangements "to import 400 fine woolled ewes with rams in proportion per "Brig Bee" from Sydney direct to Akaroa, at 18/- per head." Five years later Robert Heaton Rhodes came to New Zealand with stock from Australia and on their Peninsula station there were 6,508 sheep, including 3,400 ewes valued at 17/6, 103 cattle including 45 cows, at £8, and eight horses valued at £130 altogether.

At the time of the arrival of the first four ships the Deans had cultivated about 150 acres. In the whole province there were no more than 200 acres under the plough and Mr Chas. Torlesse, the surveyor, writing in 1851 puts the number of stock in the Canterbury block at 17,000 sheep, 1,400 cattle, 50 horses (the Deans had over 30 and no one else had so many). These Pre-Adamites were able to supply the Canterbury Association surveyors, and later the Pilgrims themselves, with fruit, vegetables and meat. "We are disposing of our fat cattle as fast as the butcher can take them off our hands and they fetch us upwards of £15 a head on the average. . . . In about six weeks we expect to receive about £600 for potatoes alone."

In the first six months of the settlement probably less than 20,000 acres of land were either sold or leased so

that there was an ocean of waste lands surrounding a little island of settlement at Christchurch and Lyttelton. Having no experience of sheep, the Canterbury Pilgrims from lack of inclination, enterprise and capital did not engage in this branch of farming, and instead were content with small holdings of agricultural land near the towns. The sole exception was Mr Watts Russell who bought the Deans' sheep station at Dalethorpe, part of which was later known as Russell's Flat.

After a very bad drought in Australia a few bold stock owners decided to seek "fresh woods and pastures new" in that land untroubled by drought and flood, where grass and water were plentiful. Hawdon and Aitken came from Port Phillip to Canterbury in 1851 with some stock. Favourable reports of Canterbury, given by Hawdon and Aitken, the first Australian squatters, found their way into the Victorian papers, and soon began that influx of men and sheep fleeing from a drought-stricken land. Many of these men, such as Reed of Westerfield, Mark Stoddart of the Terrace station and the Macdonalds of Orari, occupy a place of honour in the history of sheep farming in Canterbury.

The crisis in the land regulations now came to a head. Robert and George Rhodes explored the fertile land to the south about which they had heard from Sam Williams, once a whaler at Timaru. Having found it full of promise, they applied to the New Zealand Company for three runs, and early in 1851 they set off to Timaru with a mob of 5,000 sheep from their Peninsula runs. By taking up runs outside the Canterbury block, the Rhodes brothers set an example which others would not be slow to follow. Godley realised that as a result of the "discouraging and prohibitory nature of the regulations" the Canterbury block would be "an unoccupied waste amid pastures teeming with sheep."

For the most part the Pre-Adamites had leased their runs from the Maoris with the permission of the New Zealand Government, and they were anxious to secure their holdings within the Canterbury block, extending from the Waipara river to the Ashburton. In November, 1851, R. and G. Rhodes were granted a licence for 20,000 acres more or less on Banks Peninsula, on the hills above Port Cooper and the borders of Lake Ellesmere. But though

the Deans were eventually given the lease of Homebush in compensation for their run at Riccarton, there was a lot of trouble before a satisfactory agreement was reached between the Deans, Mr Godley, and the Association in London. For since Riccarton included the site of Christchurch and would offer desirable land for selection by the Pilgrims, the matter of compensation involved the right of free selection laid down in the Association's land regulations.

Mr Godley, the Association's agent in Canterbury, and the more discerning colonists soon found that the land regulations drafted in England for a close agricultural settlement were unsuitable for a region in which the chief hope of immediate prosperity lay in pastoral pursuits. As the mouthpiece of this body of opinion in 1851 he wrote to the Association, "The existing rents are too high, but chiefly there is no security, since immediately outside our block, as much land as is required may be had without any payment and unless we have some special inducement to offer we cannot expect that anyone will prefer our side of the boundary." The government terms were 1d. per head per sheep, allowing a run sufficient for five years' increase. Thus, if a squatter intended to stock a run of 20,000 acres with a carrying capacity of a sheep to every acre, fully at the end of five years, he would put 2,000 sheep on it in the first year and pay £8/6/8. This would increase as the means of paying increased and when his run was fully stocked with 20,000 sheep he would pay about £41/13/4 a year. Under the Canterbury Association regulations he would have to pay £200 a year the first year, a rent which "no possible profit from his sheep in the first years, would approach to defraying, and which would be far too heavy to the last."

It was a "paramount necessity to alter these arrangements" which had so unfortunately been introduced into the act of parliament, and meanwhile Godley tried to relax the strict letter of the law as far as his powers would enable him. Messrs Aitken and Hawdon, who had already bought more than £800 worth of town property and were likely to purchase more, applied for a run. Referring to this application Godley wrote: "He (Mr Aitken) is willing to take such security as I can offer but there is not much chance, I fear, of getting others to run an equal risk, inas-

much as I cannot secure them against land purchasers." Letter after letter was written by Godley in order to make the Association at Home realise what was at stake. "I cannot too often repeat that in a new country farming will only pay the working man. . . . Landowners have, therefore, absolutely nothing to trust to except the wealth which may be created by export trade, and the only export trade apparently possible for the district consists in the produce of cattle and sheep."

Realising that it would be ruinous to the interests of the colony to drive away the capital, colonial intelligence and experience of these Australians, he took upon himself to substitute for the old regulations new ones applicable to the colonial situation. When these were submitted to the Land Purchasers' Association, they were approved and the regulations being thus fixed to the satisfaction of the Australian squatters, capital and stock continued to flow in and ruin was averted. These proposals which remained in operation until 1855, allowed a run sufficient for seven years' increase. The stock holder had to take up 1,000 acres in the first year, 2,000 in the second year, 4,000 in the third, 7,000 in the fourth, 10,000 for the fifth, sixth and seventh. The practical result was the same as if the stock owner had a seven years' lease of 20,000 acres, paying a gradually increasing rent as the run became more profitable, the highest rent being equivalent to 10/- per every 100 acres. These terms were not quite so favourable as those of the Government, but were in part compensated by proximity to a port and market, and a civilised and settled district.

After these new regulations were issued, there was a scramble for runs, the Australian squatters realising the potentialities of the Canterbury plains, despised by the Canterbury settlers, who were content with cultivating small patches when they could depasture large flocks of sheep on the vast plains. The Shagroons became known as Prophets as they prophesied the doom of the Pilgrims. Mark Stoddart wrote: "As to the Canterbury Pilgrims, a year or two must smash them all with their 50 and 100 acre lots and this country will fall into the hands of the old settlers from the colonies."

PILGRIMS AND PROPHETS

"Gaily the pilgrim harnessed his plough
When he had built up a roof over his head,
Singing 'from Albion hither I come
Land of mine! land of mine! grow me some bread!'

"Proudly the prophet flourished his crook
When he had landed his sheep from the west,
Singing 'from Albion hither I come
Silly men! silly men! wool pays best.'

"Quickly the prophet bred up his flock
As he defied dogs, scab and catarrh,
Singing 'To Philipland back I shall go
Where they no longer need baccy and tar.'

"Slowly the pilgrim toiled for his crop
And soon he sent golden wheat to the mill
Singing 'For ever shall this be my shop
Shepherd man! shepherd man! go if you will.'

"Shortly the pilgrim and prophet agreed
The plough and the crook couldn't live far apart,
Singing 'Together we'll tend and we'll till
Shepherd man, Farmer man, keep a good heart.'

"Lastly the good men avoided a 'smash'
Whether to shear or to reap was their aim,
Singing with cheers from the plains to the hills
Pilgrim and prophet be one and the same."

Crosbie Ward, August, 1851.

However, after holding off for a time, the Pilgrims soon caught the fever and by the end of 1852 every acre of the plains and most of the low hills north of the Rakaia had been applied for. The squatter and his flocks, starting from Christchurch as the centre, occupied the coastal lands and low hills, but owing to swamps, swift-flowing rivers and slightly lower rents and prices of land outside the Canterbury block, sometimes land further away from Christchurch was taken up whilst land near at hand was unoccupied.

For example, the Rakaia river delayed settlement of the country south of it for a year or more. A few runs were applied for in 1852, but most of them were abandoned again and, generally speaking, the lands were not allotted there till 1854. Beginning at the sea, Acton was the first station on the south bank of the Rakaia, and its runs Nos. 90

and 91 were taken up by Edward Chapman in July, 1853, Runs 87 and 88 by the Rhodes brothers in May, 1853, and Run 89 by Joseph Hawdon in May, 1853, and others in December, 1853 and in 1854. In 1855 and '56 new lands were discovered for pasturing sheep. The escapades and final capture of Mackenzie, the sheep-stealer, directed the attention of the colonists to the land beyond the Snowy mountains. After exploring the open plain, now known as the Mackenzie Country, Rhodes applied for a small block of beech covered land at Lake Ohau, and Sidebottom more ambitiously applied in May, 1855, for a run which apparently included most of the Mackenzie plain. The first settlers to make their homes in the newly discovered territory were William Hutcheson and John Hay who came in 1856. The boldness of two men of Devon, Tripp and Acland, in taking up the first large block of high mountainous country, once it was shown to be more than youthful madness, set an example which was followed with such eagerness that by 1860 the gorges had been penetrated and the country taken up to the very foot of the glaciers of the main chain of the Southern Alps. Much of the pioneer exploration of the mountains and river valleys was done by settlers in search of pasture. However, in 1860 Samuel Butler, in spite of journeys of exploration up the Waimakariri, Rangitata and other rivers, failed to find any virgin country suitable for wintering sheep and had to buy Mesopotamia station proper from an earlier settler. He wrote, "At night a lot of Nelson and Wellington men came to the club. I was amused at dinner by a certain sailor and others who maintained that the end of the world is likely to come shortly; the principal argument appearing to be that there was no more sheep country to be found in Canterbury. This fact is, I fear, only too true."

Once more the question of land tenures arose when in 1853 Grey issued his cheap land regulations. Representative government had now been granted to the colony as a whole, and Provincial Councils were established in the various provinces. When the Canterbury Council was given control of the land within its boundaries there was much discussion of the advantages and disadvantages of cheap land, resulting in the adoption of new regulations in 1856. Control of the land in Canterbury had previously been

divided between the Commissioner of Crown Lands, Colonel Campbell, and the Commissioner of the Association Lands, William Guise Brittan. This division of authority caused considerable ill-feeling and Campbell was the scapegoat. It was his unenviable task to fight for the rights of the pre-Adamite settlers. He had no assistance from the survey department and was even forbidden access to documents relating to land. In these circumstances is it any wonder that there was considerable delay in attending to applications, and that he acquired the reputation of being a stupid creature totally incapable of performing this or any other work? Finally, as a result of petitions from runholders outside the block and from the Provincial Council, in 1854 Brittan was put in charge of lands outside as well as inside the block. The new regulations established a Waste Lands Board consisting of a Chief Commissioner assisted by two to five commissioners appointed by the Superintendent. Town lands were to be sold by auction, and the price of rural lands was reduced from £3 to £2 an acre by the removal of the £1 for ecclesiastical endowments. All waste lands, until sold, could be occupied for pasturage; liberal provision for the increase of stock was made by allowing 20 acres per each sheep and 120 a head for cattle; and rents were to be calculated per acre, as being a simpler method for assessing and collecting. Runs were divided into three classes. Class I consisted of those of less than 1,000 acres, made up of the Pilgrim's pre-emptive right sections, and were licensed at the rate of 20/- per 100 acres. Class II between 1,000 and 5,000 acres, (most of which were on the better land near the coasts) were licensed at twopence an acre for the first 1,000 acres and a penny for every additional acre. Class III of over 5000 acres were licensed at a farthing per acre for the first and second years, a halfpenny an acre for the third and fourth years, and three farthings an acre for the fifth and every subsequent year. If renewed according to regulations, the fee for such licenses was not to be altered till May 1, 1870. Class III runs were not allowed to remain unproductive and unstocked, and if at any time during the first four years after the issue of the license the quantity of stock should be less than that originally required, or during the next three years or during any subsequent period less than three

times the amount, the run might be declared forfeit. Anyone taking out a license for an unstocked run had to make a deposit of 10/- for every 100 acres, which would be returned when the run was stocked, or forfeited if not. Holders of licenses were given pre-emptive rights over their homestead and adjoining acres to the extent of 5 per cent. of the acreage of Class II runs and 250 acres for Class III, and also over all lands occupied by any buildings, plantations, cultivations or any other such improvements as should be judged sufficient by the Waste Lands Board, together with 50 acres comprising and circumjacent to lands so occupied and improved.

CHAPTER IV

Starting a Station

WHEN seeking a run some men looked at the map in the Surveyor's office, and decided on a certain district; others perhaps heard from explorers of grassy flats up rivers; others, being both more adventurous and more cautious, explored the land first.

Tripp, while a cadet at Burke's Halswell station where he was gaining experience in colonial farming, accompanied an expedition to Burke's station in South Canterbury, Raincliff. On his return to Christchurch he applied for a run in those snowy ranges on which he had gazed with wonder while in South Canterbury. His first application ran as follows:

> C. G. Tripp, 57,500 acres.
> Bounded on the north by the snowy range, on the east by the Rangitata to the fork and thence by the eastern bank of that river to include the country in the forks on the south of Peel Forest, and on the west by the higher range of the mountains running in a northerly direction from Mt. Peel.

Accompanied by J. B. Acland, who had also applied for a run, he set out to explore his estate. Since the hillsides, covered with thick tall tussock, flax, and toe-toe and snow grass, not to mention Spaniards and matagouri, contained little feed for sheep, Tripp and Acland, like other run holders, burnt extensively so that finer grasses might grow out of the ashes of the ranker plants. "That night lines upon lines of flame went roaring up the slopes and crackling down the gullies; and according to Tripp, the finest print could be read a mile off by the light of it."

Before taking up a run the Kennaway brothers spent some time in South Canterbury examining the country, the vegetation and the supply of timber, water and shelter. After satisfying themselves as to its capabilities for carrying stock, they started back for the coast as rapidly as possible in order to secure the land by a formal application to the Land Commissioners. When they approached the settled districts they went as "quietly as possible to avoid

giving any clue to the direction whence they had come, lest anyone who had not been at the risk and trouble of getting upon the country should step in before them with a paper claim and spoil their intended application."

Once a run had been taken up, the next thing to be done was to stock it. Many of the squatters brought sheep with them from Australia where, owing to drought conditions, they were selling at 4d. to 6d. a head.

By the middle of 1851 seven or eight stations had been taken up, and by the end of that year the Lyttelton Times estimated the number of sheep had risen to 30,000. One of the earliest importers was Mr Charles Sidey. He sometimes brought his stock over to order, but at other times he imported on his own account and sold his shipments on arrival. Other early importers were the Macdonalds of Orari, the Wilkins, Joseph Hawdon and Sefton Moorhouse. The last was not very successful and on one occasion the voyage was so protracted that he and his fellow passengers had to eat some of their horses. Losses were often considerable as small sailing ships often took a month on the voyage; in one shipment 1,300 were lost out of 2,200, but at other times there were hardly any losses; in 1855 Mr Moore of Glenmark lost only four out of 2,000. When sold at Lyttelton imported Merino ewes realised 16/- to 20/-.

With the boom in runs, sheep became difficult to obtain, and prices soared, especially for acclimatized sheep. The demand for sheep was greater than the supply: in 1853 the imported sheep had been bespoken several months previously at 25/- a head new landed, and some old acclimatized sheep had sold as high as 35/-. Among newly landed sheep and cattle, losses were sometimes heavy from the effects of the colder climate and from eating tutu. At times an unfortunate mob when resting for the night might wander down to a tutu-infested riverbed. In the morning the shepherds would find some dead, others wandering round in a drunken stupor, then suddenly running backwards and dropping with frothing mouths and clenched teeth. When in one of their fits, they would soon die if not attended to. The usual treatment was "to raise them on their legs, force their mouths open and if very bad bleed them in the upper part of the mouth." Others would bleed

them in the temple or ear. Normally blood letting had an instantaneous effect; however, in very bad cases they might continue having fits for days, refuse to eat and refuse to follow the flock unless pushed on from behind. Thus a driver with a "tutued" mob had many cares on his shoulders and would heave a sigh of relief when eventually he arrived at his destination.

Most imported sheep had to cross two troublesome stretches of this noxious plant in the neighbourhood of what is now called Weedons. "If they were allowed to feed or rest there after landing, probably half of them would be "tutued" or lost. The practice, therefore, was to give them a good rest before reaching this locality and then to rush them through the tutu so hurriedly that they could not feed."[2]

To supply the great demand for sheep some were imported from the older settlements, especially Nelson. The journey from Nelson to Canterbury was no easy matter as the Kaikoura mountains come right down to the coast, and the inland route lies across many mountain ranges.

The first exploring trip up the Awatere over Barefell's Pass to the Waiau and Hanmer plain was made by Dashwood and Mitchell in 1850. After much hardship they reached the Canterbury plains near Kaiapoi and were found by the Maoris nearly half starved and without horses. Jollie, who happened to be staying with Captain Thomas at Cass's house in Riccarton, described their return to civilization. "When two very rough, dirty-looking men with packs on their backs, arrived at the door which was open, Thomas, taken by surprise at their appearance, shouted out, 'Who the devil are you?' To which they meekly replied that they had come from Nelson, overland. As they spoke like gentlemen, they were at once welcomed and supplied with a glass of grog each and dry clothing."

During the summer of 1850-51 Weld also explored this route with a view to sending sheep from Flaxbourne to Canterbury. He examined the country from the Waiau river north and then from the Awatere south. Unfortunately he got confused with the rivers and when some drovers were taking 700 wethers to Canterbury they became puzzled where Weld's map and description were faulty, and abandoning the sheep they returned to Flax-

bourne. Two years later a few score sheep were collected by Caverhill, but the rest were lost.

Early in 1852 Mr A. Clifford succeeded in driving about 1,500 ewes from the Waiau district, along the coastal route from Cape Campbell to south of the Kaikouras, and only lost one on the road. About the same time E. J. Lee was preparing to drive a flock from Nelson to stock his run on the Waiau river, and Jollie decided to join him. Their party of four set off in the beginning of March, taking with them 1800 sheep, three sheep dogs, three horses and a foal, "flour, tea and sugar as necessities, and as luxuries, a cheese and a lot of fine onions." They had great trouble with the rivers, and wild Irishmen and Spaniards. "These noxious plants delayed us by making many of the sheep lame so that we always had a lame lot at the rear of the flock which neither dogs nor men could move faster than they saw fit. Lee and the shepherd did most of the driving, Berry did the cooking and packing up, etc., while I gave assistance to both when required, and also in the afternoon I rode for a few miles ahead and looked for the best road to travel next day. I also surveyed the line of our route which I afterwards made into a map. Sometimes it took all hands to force the sheep through the roughest parts, and the average distance progressed after hard work of 10-12 hours was not more than 3½-4 miles." This gives some idea of the patience and hardihood required for such a trip. Just before descending to the Hanmer plains via Jollie's Pass they had to wait a few days in the Clarence while they cleared a route through the beech forest by means of a lucifer match and hatchet. Eventually they reached their destination after being a month on the road and after being on limited rations of flour and sugar towards the end, but they lost only fifty to sixty sheep.

In the same year an Australian, Young, who had purchased a run of 250,000 acres in Amuri, arrived in Nelson and bought 1,500 sheep which he sent overland with Mannering. Mannering was accompanied by two Scottish shepherds, a "capital bushman," three packhorses, and four or five dogs. This journey over Barefell Pass, down to the Hanmer plains via Jollie's Pass, through dense scrub, over steep mountains and across swift rivers, a distance of 240 miles, took two months.

Three years later, Mr Weld discovered a direct route from Nelson to Canterbury from Tophouse down the Wairau valley, then down the Acheron to the Clarence, and over Jollie's Pass to Hanmer. This route avoided the Fairfield Downs and Barefell Pass, diminished the distance to be travelled by about 130 miles, and would, after a slight outlay on the part of the Government, place the fine grass country of the Acheron and Clarence at a distance of from two to three days, that of Waiau-ua and Hurunui at from four to five, and Christchurch itself at about six days from Nelson. In 1864, 61,420 sheep were imported, of which 12,520 came by sea, 38,050 from Nelson, 10,850 from Otago. Thereafter importations fell off, till in the mid 'seventies the natural increase of the sheep was more than able to meet the demand, and in fact the market became glutted.

Once sheep had been purchased, the next job was to drive them to the run. This was no light task in a land with few roads and almost no fences, and crossed by treacherous, unbridged rivers, with "sheep unmanageable and accustomed to roam over great tracts of country, allowing no one to approach them within half a mile, but stretching away at full gallop and trying the mettle of good dogs to head them."

"Three hands and myself left the coast to take delivery of a flock of 1,000 sheep not far from Nelson on the northernmost boundary of the Province. The sheep, having been yarded during the necessary drafting and branding for three days and nights without food, by this time half-starved and twice as wild, strung away at starting at a rapid pace seeking ravenously for feed. As a rule, to drive a mob of sheep for any distance takes not less than four hands with three horses saddled and one packed with provisions and baggage; a pair of blankets and a tin quart pot per man, a frying pan, tether rope, butcher's knife, bag of flour and canvas bag of tea and sugar, a nob of salt and a few boxes of matches with a reserve of flint and tinder for a pinch, in most cases makes up the list. During the day the sheep have to be got somehow over the deep sides of the hills and through long stretches of plains, as well as the tangled growth of the wild country, the rugged nature of the ground, and the greater or less heat of day will permit. It needs incessant care to prevent stragglers break-

ing away from the head and sides of the mob, and the rear of the flock made up of weaker sheep requires an equally constant look-out. The horses are led or ridden as the ground allows. The sheep were so wild and restless that it was necessary to keep a double watch, two of us took charge, the other two camping, it being arranged that each pair shall call the other after four hours' watch. This watch consists of continual walking backwards round the flock from one point to another to check the constant efforts of the sheep to break away. As soon as the watcher has stumbled over the rough ground to one end of the flock, an unquiet suspicious bleat or two, and a rattle of tramping feet will summon him to the other where a throng of grey nodding heads will be indistinctly seen stringing out from the main circle and trying to break away through the darkness. Back and forward through the night till the time comes for calling out the other human pendulum who meanwhile has been enjoying his night's rest somewhat in the following way. He has cut (if he could get them) five sticks upon which to form a frame-work; over these (if he has one to spare) he has thrown a red blanket, lashing it at the corners to pegs or placing heavy stones along the edge, at one gable end of this mansion he has hung up his oil skin coat, as a break wind to his head—again applying the great stone principle to keep it down—and bracing the whole against the wind by flax lines lashed to the ground fore and aft. On the ground under this lordly roof the sheep watching colonist has laid his saddle cloth and pea jacket, having placed at his head, for a pillow, his saddle supported on each side by his boots, then he crawls like a weary caterpillar into his lair, draws his spare red blanket over him and sleeps heavily from sheer weariness." As soon as the first light of dawn began to pierce the blackness of the night, it was the signal to rise and start moving. They travelled "till 10 a.m. when the sheep would camp down. Then they got going again in the cool of the afternoon and would camp the sheep again at dusk."[3] When the mobs were big they could do only 10-12 miles a day, but on rare occasions they did as many as 20 miles.

Today when we cross rivers on well-built bridges, it is hard to realise the difficulties of sheep drovers when

they had to cross a river with a mob of sheep. Sometimes sheep take to the water easily enough and are coaxed over a deep stream without much trouble or loss of time, "at others it seems as if all the king's horses and all the king's dogs could not induce them to swim." The men might have to stand for hours nearly up to their waists in freezing water pushing the sheep into deep water, making them start in the right direction and preventing them from turning back for the shore.

One of the great difficulties in driving sheep through unfenced country was to prevent flocks from mixing. So before crossing another man's run, it was necessary to give 24 hours' notice to enable him to remove his sheep. However, the sheep were sometimes perverse and would travel several miles to meet forbidden friends. Sewell described the consternation that greeted the shepherd's announcement, "Here's a concern. McLean's sheep are in with ours. I see red raddles on their backs." Trying to get sheep out of a mixed mob was a great trial of human patience. The best plan was to "cut the mob in halves and drive one portion away from another. Of course banished ones are restless to regain their companions who are kept within sight. So as soon as they fancy the coast is clear they make a bolt. Now is the trial of patience. You must not let the wrong ones pass. 'There goes one with a red mark! Hi, Ho!' Dogs and men are scampering as fast as they can to make it join its companions." But at last the work would be finished and the weary drover would continue on his way.

If the sheep arrived before the squatter had got his stores and equipment up from Christchurch, or if there was insufficient pasture ready for them owing to the lateness of the recent burning, he might arrange with a squatter whose run was not fully stocked to take his sheep on terms. Or else, if owing to the scarcity of sheep the runholder was unable to get sufficient sheep to fulfil the stocking conditions laid down in his lease, he might take someone else's sheep on terms. The person who agreed to take the sheep for a certain number of years, allowed the owner 2/6 per head per year in lieu of wool. This would be equivalent to a yearly interest of 2/6 on the price paid for the ewes, say 25/-. Besides this the runholder allowed the sheep owner 40 per cent. per annum of the increase, half male and

half female. At the end of the period the sheep would be returned with no deduction for deaths. "But as the original sheep would be of course so much the older, and some of them doubtless dead, sheep of the same age as they would have been would be returned in their place."[4]

This schedule shows what 500 ewes would amount to in seven years, supposing the yearly increase to be one half male and one half female.

	Ewes	Ewe lambs	Wether lambs	Ewe hoggets	Wether hoggets	Wethers	Total
1 yr. old Jan. 1860	500	—	—	—	—	—	500
„ 1861	500	100	100	..	..	..	700
„ 1862	500	100	100	100	100	..	900
„ 1863	600	120	120	100	100	100	1140
„ 1864	700	140	140	120	120	200	1420
„ 1865	820	164	164	140	140	320	1748
„ 1866	960	192	192	164	164	460	2132
„ 1867	1124	225	225	192	192	624	2582

The yearly wool money would be as follows:—

		£	s.	d.
Jan. 1861	... 2/6 a head ...	62	10	0
„ 1862	... ...	87	10	0
„ 1863	... ...	112	10	0
„ 1864	... ...	142	10	0
„ 1865	... ...	177	10	0
„ 1866	... ...	218	10	0
„ 1867	... ...	266	10	0
Total Wool Money	.. .. ..	£1067	10	0
Original Capital Expended: 500 Ewes at 25/-	.. .. ..	£625	10	0

Out of the 2,582 sheep returned to the owner 500 would be very old, 200 would be seven years old and these would pass as old sheep and not fetch much. Even if the value of sheep had gone down from 25/- a head to 10/-, the remaining 1,800 sheep would realise £900.

Another system was Thirds or Guaranteed Thirds. In the former, the person taking the sheep bore all the expenses and received for his trouble one-third of the wool and yearly increase of the flock. In the latter, the original owner of the sheep, instead of taking his chance of two-thirds of wool and increase had a certain percentage and weight guaranteed to him, usually 50% of lambs and 2lbs.

of wool. The runholder had the remainder, large or small and if a minimum quantity was guaranteed he had to make it up.

Putting "sheep on terms" was a very common custom in the early days. Tripp and Acland ran their sheep on terms for some months with Dr Moorhouse at Shepherd's Bush, while they organised their station, and Rolleston, having insufficient sheep to stock his run, Mt. Algidus, grazed 900 sheep belonging to Mr Ross for a period of two years. When sheep became more plentiful the system fell into disuse, the last known case of sheep on terms was at Horsley Downs and a letter dated May 11, 1870, says that all agreements for sheep on terms ran out that year.

Inhabitants of Christchurch who lived near the main north and south roads must have often witnessed the first acts in many a pioneering drama, as they watched the bullock drays laden with provisions, tools and other stores, move slowly along the road and then disappear into the unknown beyond. These were the pioneer runholders going to take up runs in the plains beyond the Rakaia; or the distant Mackenzie Country, the recent haunt of the notorious sheep stealer, or up the rugged gorges to the valleys at the foot of the snowy mountains.

Having reached the run at last, the squatter would first choose the site of his home station, bearing in mind such things as "nearness of water and wood, accessibility, proximity to the place where the wool shed must be, a central position, capability of shepherding from it two flocks, good garden soil, natural facilities for making paddocks." Then after the tents were pitched, or grass whares, "not much bigger than dog kennels" were built, sheep yards with post and rail or sod wall fences would be made. Next a stronger dwelling place would be built and possibly a wool shed. In the second and third years he would have plenty to do in "making a large well fenced garden, horse paddock, ram paddock, oats or wheat paddock, good permanent washing place; in enlarging the sheep yards, and wool shed, and especially in making a dipping place with boilers, an almost necessary insurance against scab, and perhaps an out station."[5]

Starting a station involved much labour and money, and was not something to be undertaken lightly. Not till

the third year, when there would be wethers as well as wool for sale, would the station pay for itself. The following gives some idea of the capital needed for starting a station.

1,000 ewes at 30/-	£1,500
Dray and bullock team	230
Two saddle horses	140
First year's stores and tools ..	300
Extra cash expenses of first three years	700
25 rams at £5	125
	£2,995

In an address given to the Bath Agricultural Society while visiting England in 1858, Acland stated that £2,000 was sufficient capital with which to start a run. A thousand ewes would cost £1,000, a dray and eight bullocks, tools, household utensils, first year's stores and the expense of putting up a house, etc., would cost over £500 and it was necessary to have £500 in reserve to meet wages and expenses of the first one or two years.

If the runholder did not have the good fortune to come to New Zealand with that amount of capital he often had a hard struggle in the early years. For instance Jollie wrote, "We were economical in our expenditure but found the expense of starting a station considerable in an out of the way place, as Parnassus, without roads or proper boats for landing things in the surf." Even with the addition of money from surveying, from the sale of wool and sheep, and from England they were far from being out of debt.

CHAPTER V.

Sheep and Their Management

THIS was the golden age of the Merino; with few and unimportant exceptions all the sheep were this breed. Merinos, introduced mainly from Australia, were admirably suited to make the best use of the native tussock. "Of all domesticated breeds of sheep it thrives best on hard fare and has the greatest powers of survival when food is scarce." As a result of its nervous and highly strung temperament it attains its optimum development only when allowed to roam in "wide open spaces with the minimum interference by man." It is especially adapted to steep hill country "where its small wiry frame enables it, and its restless nature prompts it, to explore every inch of its domain. Thus it grazes right to the crest of the spurs"[6] while other breeds cling to the valley bottoms and lower slopes where there are greater risks of burial and death beneath snow drifts.

Before the introduction of wire fencing one of the most tedious jobs on a plains sheep station was keeping the boundary. Shepherds, stationed at strategic points, would go round the boundary once or twice a day, and at night work the sheep below a river terrace so that they could be easily moved on to the bare shingle if a tussock fire started. Boundary keeping was quite an art, the secret being to leave the sheep undisturbed when they were on their own run, but once they reached the boundary, "startle them, frighten them, do so again and again at the same spot," and after a month or so they would begin to understand and then it would be easy to keep them within bounds.[11]

In order to disturb the sheep as little as possible, not to mention saving the shepherd's boot leather, "crow's nests," platforms on poles or in cabbage trees, were frequently built on the plains as look out stations.

With the spread of scab in the late 'fifties and 'sixties, a strict keeping of the boundary became more urgent. In those days fences were made to keep stock not in, but out,

that is to say they fenced in the cultivated areas to keep sheep out. In districts where there was bush handy, especially along the foothills, post and rail fences were used, in some places wattle fences made of manuka stakes and trunks, but usually a ditch and bank or sod wall with gorse planted on it was made, but all these were slow and expensive to put up.

In 1854 out of 400,000 acres in Canterbury only 7,221 were fenced and the many Cattle Trespass Bills of the Provincial Council bear witness to the trouble of straying cattle. The whole system of station management was revolutionised with the extended use of wire fences, runs could be fenced not only along the boundary, but also could be subdivided even on hilly country. At first iron wire fencing was considered of little use except for subdividing paddocks, being "too weak to serve as an external fence against wild cattle," and not till the 'sixties did it come into its own. Probably the first to introduce wire fencing into the back country was Rowley of Clent Hills, who began subdividing his flats with them in 1863.

To start with, the wire was half an inch thick and could not possibly be knotted or strained and its greater weight made it impracticable for carrying up hilly country. Later black ungalvanised wire of a much smaller diameter was used and this can still be seen on some boundary fences. Still later came the manufacture of galvanised wire in Australia. Moreover, in the early years staples were not used, instead, the posts were drilled to take the wires. Wire fences were usually made of standards and five wires with very few posts except strainers, so that if you "slewed" a mob of strong merino wethers too hard against a fence, the fence went flat. To protect these fences, posts and rails were frequently put on each side of the gates for half a chain. On the back country fencing was a big undertaking when wire and standards had to be carried long distances in bullock drays, in sledges, on pack horses, or even on men's backs in particularly bad places. In the Four Peaks diary there are such items as on October 9, 1868, "All afternoon busy putting pack saddles to rights, packing standards, bundles, etc.," and on October 10, "Kysen and McP. took two trips with three pack mules to the top of the new fence."

The Sheep Farmer's Year

The order of events in a sheep farmer's calendar is largely determined by the time chosen for lambing. At first autumn lambing was preferred, as the heats of summer were over, there was fresh autumn grass for the ewes and a plentiful supply of spring grass for the milk lambs to be weaned on. Also there were no young lambs in the way at shearing time, and not the same difficulties of mothering up. Moreover, the lambs had quite a good fleece at shearing time. Some considered that the largest and strongest lambs were obtained from spring lambing, and, owing to winter damp and cold, autumn lambing was not possible everywhere. However, settlers who commenced with only a small flock of ewes frequently allowed them to lamb at any season of the year, sometimes having three lambings in two years. By the late 'sixties spring lambing was adopted and proved satisfactory. Artificial feed was grown to feed the hoggets during the winter months. There were only a few adherents to autumn lambing by 1867, and the severe winter of that year, and the heavy losses of autumn lambs clearly showed that spring lambing was better.

Mustering and shearing were the major events in the life of the station, when the monotonous solitude was changed to bustling activity. On the hill country mustering was, and still is, a difficult and strenuous business.

When light wire fencing was invented, the hills began to be subdivided, and as the wire did the work of a man, fewer permanent shepherds were employed; but at certain times of the year the sheep had to be brought to the homestead for shearing and dipping. For this seasonal work shepherds or musterers were employed, organized in gangs moving from station to station. A gang of musterers going into the back looked like an "army as they moved with their baggage team, consisting of pack horses or mules in charge of the 'packer' who also fulfilled the duties of cook, butcher, and numerous other roles. While they spent the day on the hills collecting the sheep, he would move round by the easiest route with his pack train to the camping place for the next night. If he was a good packer the musterers on their return found hot tea ready, smelt meat cooking,"[7] and

found their swags waiting to be laid out ready for them to "turn in" after their meal and yarn round the camp fire.

The Merinos were wilder in those days, and because they moved freely, fast and recklessly they were easy to smother, especially when they were going in the wrong direction and had to be stopped, or when a large mob was crossing a narrow steep gully. Mt. Peel was unlucky with smothers. Once a "new chum" was "following part of a mob down what looks from above to be a perfectly good spur, but really ends in two bluffy gullies. The sheep turned back, but he hunted them on and 1,100 went over before they could be stopped." Another time 5,000 were smothered in a gully. Once the sheep were brought down from the back they were frequently washed. When all the wool had to be carted in bullock drays, sheep used to be washed before shearing to avoid carrying unnecessary dirt and grease. One day, when Mr Upton was coming down from Benmore to Springfield, at the Kowai he found "Thomas (manager of Grassdale) and three shepherds with a hurdle yard jamming the sheep through a big hole to wash them. He had one man about three chains up the river with a bag of sprinkling soda, as Thomas said 'to soften the water a bit'."

Another method was "spout washing." Each sheep after swimming about and soaking for five minutes was brought under a shoot of water falling from a height of about 2 feet. The sheep were held under this for about half a minute and turned over so that all parts of the fleece were exposed to the water. Although very effective this method was considered to knock the sheep about too much.

Acland described sheep washing at Malvern Hills. "December 15—We washed wether flock today, 300 in about 3 hours. They are thrown into the water about 20 at a time, ducked once or twice with a forked stick, and pushed under a pole, then passed singly before a man standing in a cask, who pulls them about to see that they are properly washed and then they are allowed to get out."

Later the sheep were driven into "the soak," a sort of bath about 20 feet long by 10 feet wide let into the ground beside a creek. It was filled and kept full of luke warm water to which soap and sometimes ammonia were added. When let out of the soak the sheep were driven on to a platform overhanging the creek. After draining a

little, they were "tipped in, seized upon and washed clean by men standing ready in the water." When this process was finished, they were taken back to the paddocks for four to eight days to dry before being shorn. Mt. Hutt was the last station where sheep were washed, and sheep were "hot-water-washed" there till about 1887.

Shearing conditions were at first extremely primitive; for example, in 1851 Dugald Macfarlane of Ledard did his shearing out of doors, on a drawing room carpet his family had brought to New Zealand with them. "They turned it upside down to shear on, and their most active shed hand was their strapping Scotch maid." More frequently tarpaulins were used, or boards were put down for the purpose.

Although conditions and equipment have changed some items in the St. Leonard's diary have a very familiar note to the modern sheep farmer:

1856 January 23. Began shearing. Did 300.

January 25. Shearing, but in consequence of there not being enough yards, we were obliged to give up shearing, after doing 157, the sheep who were washed yesterday not being dry enough.

January 26. No shearing. Various employments. Sheep too wet to shear. Weather showery and unsettled.

Then what rejoicing on

February 26. Shearing finished, 5,602, including lambs.

Later still, woolsheds were built for storing wool before it could be taken down country, and it was some time before it became the custom to have a shed full of sheep waiting for the next day's shearing. At St. Leonard's station the slatted floor of the modern woolshed was first used about 1857. Although single drafting gates came into general use in Canterbury about 1868 and double gates ten years later, men like McMillan of Mesopotamia and Moore of Glenmark considered gate drafting knocked the sheep about too much, disliked shepherds who were too lazy to lift sheep over a rail, and themselves thought nothing of hand drafting a mob of three or four thousand.

Lady Barker describes shearing operations in the 'sixties at Heathstock in North Canterbury: "There were about 25 shearers at work and everything seemed very systematically and well arranged. Each shearer has a trap

door close to him, out of which he pushes his sheep as soon as the fleece is off and there are little pens outside so that the manager can notice whether the poor animal has been much cut with the shears or badly shorn, and can tell exactly which shearer is to blame. A good shearer can take off 120 fleeces in a day, but the average is about 80. . . . We next inspected the wool bales to which two boys were incessantly bringing armfuls of rolled up fleeces, these were laid on the table before the wool sorters, who opened them out and pronounced in a moment to which bin they belonged; two or three men standing behind rolled them up again rapidly and put them on a sort of shelf divided into compartments, which were each labelled so that the quality and kind of wool could easily be told at a glance. There was a constant emptying of the bins into trucks to be carried off to the press, where we followed to see the bales packed. The fleeces are tumbled in and a heavy screw press forces them down till the bale, which is kept open in a large square frame, is as full as it can be. The top of the canvas is then put on, tightly sewn, four iron pins are removed and the sides of the frame fall away disclosing a most symmetrical bale ready to be hoisted by a crane into the loft above; here it has the sheep brand painted on it, its weight and to what class the wool belongs. I was much impressed with the silence of the shed, not a sound to be heard except the click of the shears and the wool sorter's decision as he flings the fleece behind him. All the noise is outside, there the hubbub, dust and apparent confusion are great. A constant succession of woolly sheep being brought to fill up the 'skillions' (from hence the shearers take them as they want them), the newly shorn ones, white, clean and bewildered looking being turned out after they have passed through a narrow passage, called a 'race' where each sheep is branded, has its mouth examined in order to tell its age, which is marked in a book. . . . You can hear nothing but barking and bleating and this goes on from early morning till dark."

Groups of shearers used to travel from station to station, cutting out the plains stations first and then proceeding further back, and, as each station in the district had to wait its turn, shearing might take place at any time from October to April. In the period of the big stations,

large gangs were employed, and at Waimate about 50 men and boys were required for shearing, 22 shearers, 1 "sheep oh!" 4 fleece pickers, 4 wool rollers, 1 brander, 1 wool classer, 1 classer's boy, 3 pressers, 1 waggoner, 1 cook, 1 cook's mate, generally known as the offsider or "slushy," 8 shepherds and finally the shed boss, probably the hardest worked of all. Though "the actual shearing hours were from 5 a.m. to 5 p.m. the boss had to be in the shed by about 4.45 a.m. and when the shearing was over for the day he had to superintend the filling of the shed and make up the tallies, seldom finishing till about 9 p.m."[8] In the 'eighties 1,375 bales were pressed at Waimate in one year and in 1882 54,443 sheep were shorn.

On some stations an open shed was kept, that is shearers were not engaged beforehand; but the date of starting shearing was advertised in the papers and the boss took the pick of the shearers who turned up. When Orari Gorge was an open shed, it was worth riding twenty miles to see the shearers and shed hands being drafted, counted, re-sorted and drafted again. Probably the last stations that advertised were Anama and Stonyhurst about 1910.

At the end of the shearing there were frequently a lot of strange sheep to be restored to their owners. "During bad winters the sheep from the various runs got badly mixed up, walking right over the fences and travelling for miles on the frozen snow in search of food." On a day that had been advertised in the local paper all the strange sheep were put into the yards at Waimate. "The small farmers turned up in full force, not only to collect their own sheep but in some cases other people's as well."

Often there were heated arguments when two men claimed the sheep, one old settler was a particularly bad offender, he "always came for his sheep with a dray and was not satisfied unless he went home with it full. When the ear mark did not quite agree with his own he invariably said, 'I remember that sheep, the young fellow just made a slip with the knife while earmaking'."[8]

The following is a resumé of the principal work to be done during the various seasons of the year at the St. Leonard's station, Lowry Peaks, prepared by George Duppa in 1860.

March. Burn off portions of run for winter feed to destroy tuft grass. Haul firewood for dipping. Dip flocks and turn on to Peaks and Isolated Hill respectively. On 20th second cutting of tobacco, delay no later for fear of frost. Draft out rams as flock is dipped and keep them in a separate flock. Complete wood hauling.

April. Dig potatoes, carrots, etc., break up tobacco land as well as that which was used during the season (1 acre of land if a good crop, will produce about 3 tons of tobacco, when dug leaf and stalk together). Ditch raupo swamp (for draining) and push on fencing.

May. Complete dipping flock if not done in April. Pay off all spare hands—deliver stragglers—dig up and store remainder of potatoes if any. Plough up tobacco and other cultivated lands—transplant, as early in month as possible, forest trees, fruit trees and line fences, prune fruit trees and dig over garden ground. Give contracts for splitting and sawing if requisite. Haul posts and rails and sawn stuff as split, and cart to the station side of the Waiau valley. Collect all hurdles under shelter from weather and to be repaired during wet days.

June and July. (Very little can be done advantageously during these months, as first half of June generally very wet and during latter half and all July generally frost is so severe that nothing ought to be done on the land, indeed it ought not to be touched.) Protect flock from wild dogs. Team to haul posts and rails, etc., from Bush to Isolated Hill. Bore posts while green as delivered on station side of river unless contracted for.

August. Cross plough, harrow and seed half of tobacco land (seed should be brush harrowed in, i.e., Wild Irishman should be interlaced in the cross bars of the harrows so as to keep the tines from going too deep and burying the seed.) Cross plough potato land and set a few rows. Cross plough and seed

oat land (2 bushels of seed to the acre for hay). Sow all sorts of garden seeds, forest tree seeds, shrubs and haws.

September. Start drays to town for extra stores required before and during shearing. Plough, harrow and sow remainder of tobacco crop. Put up hut for man at Culverden end of Isolated Hill (to look after ewes and lambs). Towards middle of month first sowing of tobacco should be examined—if it has failed, sow afresh. Plant out cabbages, sow peas in garden. About 15th commence mustering flock. About 23rd commence cutting and tailing.

October. Proceed with cutting and tailing. Plant potatoes, haul firewood for dipping apparatus. Make second and clean muster of stragglers (2,000 odd wethers are turned back on the Peaks to collect stragglers for second mustering, sending one or two men back to the boundaries to prevent them getting on to Mr Robinson's run). Dip, cut, tail and pass on to Isolated Hill and from thence to Peaks—Hurunui end for shearing. Haul posts and rails and sawn stuff from Isolated Hill. Hack away dry tobacco and clear shed for shearing to commence.

Nov. 1. Proceed with cob work and fencing and yards. (N.B.—If at all fit oat crop should be cut for hay so as not to interfere with shearing.)

November 1. Commence shearing rams—dip and pass them to Isolated Hill in charge of a careful hand, proceed with shearing ewes, having as soon as portion of run is fenced off for the purpose, drafted out wethers from amongst them through a swing gate and as soon as clipped, dip thoroughly and put them on to Isolated Hill—lambs that are fit to wean should be drafted out and wethers be put with them. Start drays to town as soon as sufficiency of wool is ready.

December. Proceed with clipping and dipping flock—and dray any wool. Cut and thresh cut grass crop on a tarpaulin.

January. On first of month take first cutting of tobacco crop, hanging it up to dry. Proceed with clipping

and dipping, and dray any wool. Teams bringing back fencing wire, stores, wood or whatever may be ready for them. Important cob work to be carried on during dry season.

February. Continue hauling wool and bringing back loads of wire fencing, etc. Make a thorough muster of Peaks for stragglers all this month and after dipping and clipping them put them with the rest of the flock on Isolated Hill.

Engage best hands amongst extra men for contract work. Pay off all others whose services not absolutely required. Burn parts of run for winter feed. Clear shearing shed for second cutting of tobacco. Take second crop of oaten hay if there is one and harrow in grass seed on the same land. Proceed with fencing of all sorts.

The proper dates for commencing the four great operations with the flock at Lowry Peaks in order to ensure a good clip and increase.

September 15. Commence mustering for cutting and tailing lambs and overhauling flock for scab. Pass on to Isolated Hill as each lot completed.

October 15. Commence putting rams into the flock, in lots of fifty at a time every three or four days so as to let the whole of them be in the flock by the end of the month.

November 15. Commence shearing with a strong mob of shearers, dipping the sheep as shorn and pass them on to the Peaks, having shorn and delivered any wethers that may have been intended for the market, between the completion of the cutting and tailing commence shearing of ram flock.

January 1. Muster flocks again on to Isolated Hill to dress, shear and dip stragglers and to give the whole flock its autumn and final dipping using sulphur with dip to prevent infection. All the season through, lay poison for wild dogs on all principal saddles and centres of diverging spurs on the Peaks.

[Photo by courtesy of Ashburton A. & P. Assn.

Farm motive power of the 'eighties.

[Photo by courtesy of Ashburton A. & P. Assn.

Bonanza Wheat Days—19 reapers and binders on Cameron's Springfield estate.

CHAPTER VI

Plagues, Pests and Storms

BESIDES the routine work on a sheep station, there was frequently work to do in combating disease and pests, and in rescuing sheep from destruction by snow and floods.

Scab was the outstanding disease that ravaged the flocks of Canterbury for more than thirty years. It is caused by the presence of a small insect (Dematodecles ovis) which burrows beneath the skin and lives on the tissue underneath. As the numerous pustules dry they form hard and crusted scabs. "The excessive irritation caused by the presence of these acari induces the animal to rub against every hard object and also to bite itself wherever it can reach, thus tearing the wool and producing a ragged fleece by which the presence of scab in a flock is easily recognisable." As the disease was highly contagious any clean sheep rubbing against any object touched by an infected one, would almost certainly catch it. Thus all such rubbing places should be purified by fire and this is most conveniently done by setting fire to the grass or scrub on the run.

The first public notice of the appearance of scab in Canterbury was published in the Lyttelton Times of June 14, 1851, but it was known to have been on Banks Peninsula in 1850, and as early as 1848 William Deans had to dress his sheep for scab.

Aware of the rapid infection and of the havoc wrought by the disease in Australia, the Provincial Council in its first session in 1853 passed an ordinance against scab. Any person possessing scabby sheep was to be fined not less than 1/- and not more than 5/- for every sheep, although the fine might be remitted if the sheep were clean within six months. Diseased sheep were to be kept further than half a mile from neighbours' boundaries, and public highways. All scabby sheep had to be branded with an S four inches long, neglect to do so entailed a fine of not less than 6d. and not more than 5/-, per sheep. If anyone

landed sheep before he had secured an inspector's certificate declaring they were free from scab, he was liable to a fine of not less than 5/- and not more than £5 per sheep; there was another fine, not exceeding £100 for every day the sheep were driven or depastured in the province after landing. To see that these provisions were carried out, sheep inspectors were appointed. Also, to enable sheep belonging to different owners to be identified, all sheep had to be branded with registered brands. Later, sheep ordinances enacted penalties for introducing sheep by land without inspection and without being dipped. Owners of scabby sheep had to notify neighbouring sheep owners within 48 hours and the sheep inspector within 10 days, or else were liable to a fine not exceeding £50. By the Sheep Ordinance of 1864 every sheep owner was compelled to erect and keep in good working order "a good and sufficient apparatus for the dipping of sheep for the cure of scab."

Not till 1857 did the disease present a real threat to Canterbury flock owners. The previous year, indeed, they had been boasting of Canterbury's freedom from the disease as compared with Nelson. Alas, in 1857 several mobs of scabby sheep came down from Nelson and infected half the province. In that year £177 10s. was collected as fines paid by owners of scabby sheep and users of unregistered brands, in 1858 £425, £120 of which was paid by a South Canterbury runholder; 1859 £1905 10s.; 1860, £587 10s.; 1861, £245; 1862, £1,360; and 1863 up to July, £1,677 10s. The disease was at its worst in December, 1863, when there were 19,200 scabby sheep in a total of somewhat over a million, but from that date on the number of infected sheep decreased. In 1864 Glenmark, one of the last stations to be clear of scab, paid in that year alone, £2,400 in fines. Indeed, Glenmark was a worry to all adjoining runs, and, as can be seen by the enormity of the fine, the owner did not worry unduly about the matter. One of the more kindly reasons given for this laxity was that he disliked sheep being driven through the property. Moreover owners of adjoining runs took special care that the boundary fences they shared with Glenmark were kept in excellent order.

In 1866 the fines amounted to only £541 15s. and of that £418 was paid by two men. Canterbury was declared free from scab in 1884, but New Zealand as a whole not

till 1892. Meanwhile many runholders had been ruined, including Macdonald of Ledard in 1860, and Mannering and Cunningham of Snowdale, Fernside and Birch Hill in 1866. The disease was worst in the areas near Nelson and later in the plains where the runs were constantly crossed by mobs of sheep being driven to different stations. Some of the stations further back in the hills, like Mt. Peel, escaped altogether. North Canterbury stations like Loburn and Birch Hill where there was a lot of scrub, took a long time to clean, because of the difficulty of locating all the scabby sheep and of destroying rubbing places.

The runholders were for ever in fear and trembling lest their turn might be next and if one scabby sheep got amongst their sheep, the disease would spread like wildfire and they might be ruined. Shepherd's Bush was scabby for a time, but, as sheep very rarely crossed the Rangitata Mr Acland did not worry. However, early one morning "he saw a dog chase a single sheep across the river on to the Mt. Peel side. The sheep ran up the riverbed towards the gorge. Acland hurried back to his homestead to get several shepherds; they all rode up the run, rounding up every mob they met to find the Shepherd's Bush sheep, and kill it before it could infect the Mt. Peel sheep. After riding for several hours and looking through many hundreds of sheep, they found the straggler, caught him and killed him. In half an hour he was cooking on the fire, and though mutton should be hung, Acland said he had never enjoyed better chops in all his life."

Mr Jones of Amuri was not so fortunate. The sheep from St. James' station, the only run still infected with scab in Amuri, had tried to return to Horsley Down and when rounded up by dogs dashed for the river and swam across. He mustered all the sheep off the front country and dipped them, then in the back country he found one scabby sheep in a mob of 150 so he killed and skinned the lot. As it was a rough run it was difficult to muster and sheep could easily cross into neighbouring runs as the fences were not very good. To save the district from being declared infected, the government inspector and the runholders decided to offer him 1/3 each to kill all the sheep. He accepted the offer; all the sheep were mustered, killed and skinned. At the end of two years he secured a clean

certificate from the inspector. He had lost everything; but the New Zealand Loan and Mercantile Co. in Christchurch decided to lend him money to buy sheep as they considered it better to let him carry on than to take over the properties and try to work them.

Dipping was found to be the best method of killing the insects; one of the early dips used for scab was that recommended by Mark Stoddart in 1853, viz., arsenic ¼oz. to 1gal. of water; salt 6lbs. to 20gals. of water; flour of sulphur 1oz. to 1gal. of water and tobacco 20lbs. to 400gals. of water. The arsenic and salt were to be boiled together, the tobacco to be boiled by itself, the sulphur to be mixed with cold water, and all to be mixed and well-stirred up before commencing dipping. The tobacco and sulphur dip was found better than arsenic preparations which were dangerous for the sheep, and for the men who were dipping. Dipping was an expensive business; iron tanks for boiling the water had to be procured, as well as tobacco and firewood. The last was very difficult to get in winter, in which season also, owing to the severity of the sou'westers many sheep would be lost after dipping.

Tripp describes the work involved in dipping 12,000 sheep. "Three of us were occupied from 9 o'clock in the evening to 4 o'clock in the morning boiling water. I had to carry water in buckets all through the night, and cut up firewood and keep the coppers well supplied, and, when boiling, to dip out the water with a bucket and carry it to the large trough into which each sheep had to be thrown during the day. I was up myself this week working all night for three nights, and working all day as well. The sun rose about 4 o'clock, then we called up all the men, and we worked until evening, dipping from 1,000 to 2,000 sheep a day. Of course you can fancy the mud and dirt one was in the whole time; of an evening we all had literally to go into the creek and scrub ourselves to get the mud off."

On a large station dipping was a big undertaking; at Waimate, where there would be about 90,000 sheep to put through, including a few thousands for the cockatoos, dipping occupied about a month's hard work. However, the most effective remedy was to isolate the infected flocks; which was made more possible by the fencing of runs.

Another disease with a sinister reputation was catarrh

which had been making havoc of the Australian flocks; however, it was not found necessary to enforce the precautionary measures regarding the importation of sheep suffering from catarrh as the disease did not trouble New Zealand flocks.

Footrot, which affected sheep, especially fine woolled breeds, in wet seasons, was not fatal but was most contagious and very troublesome to cure. At Waimate, one year they had about 16,000 sheep suffering from footrot and spent most of the winter "trying to cure them by paring their feet with knives and then running them through a long trough containing a mixture of arsenic, bluestone, soda and water." The sheep had to be put through again at intervals of a fortnight, "but the only real cure was to put them on higher country, after treatment, for the germ got into the grass and any sound sheep put in the infected paddocks would soon contract the disease."[8] Long-woolled breeds are not so susceptible to the disease as Merinos, their feet being more open in the claws and do not hold the grass or mud to the same extent.

In the early days of the Canterbury settlement the sheep were troubled by wild dogs. In 1846 the Deans had to keep their sheep in a confined space to protect them and at Motunau, 2/6 was paid for every wild dog killed. At Orari Gorge and Mt. Peel they were soon exterminated by poisoning them with strychnine which was placed in a dead carcase. "Another way is to take a sheep's head, burn it in the fire until it stinks, then drag it about the bushes where the dogs infest, tie it up to a bush out of the way of rats and from exposure to birds, and the dogs take the bait and die." However, in the Amuri district the pest lasted much longer.

Captain Cook was not regarded as a benefactor by the sheep owners, because, although the descendants of his pigs sometimes provided a delicious piece of pork (more often they were tough and wiry), they preyed on his flocks and had to be exterminated. "For in many cases they spread over his run in uncountable droves, ploughed up slopes of his sunny hillside till the whole for miles was honeycombed with water pits, and the most famished of their hungry legions would follow hard upon the skirts of the flocks, and when the ewes were bringing their new young

sheep into the world, would fiercely champ up the hardly born offspring while the brave old ewe made fruitless rushes at the regardless murderer. As the numbers of the flocks increased and were compelled to spread further and further away from the immediate watch of shepherds, it became every day more urgent for the squatter to wage war without quarter on these carnivorous hordes." Moreover, sheep do not keep in good condition where there are pigs, as their mere existence makes the sheep "move restlessly up and down the hills, not stopping sufficiently to get fat."[9]

Enormous hordes of wild pigs overran North Canterbury. In an area of 400,000 acres to the north of the Ashley between 1851 and 1861 25,000 were destroyed by contract, besides thousands killed by shepherds and other station hands for a remuneration of a stick of tobacco per tail. In one year 10,000 pigs were killed on the Stonyhurst run and the numbers seemed undiminished. As late as 1871 1,000 pigs were killed within four months at Mt. Four Peaks.

Contracts were let for killing pigs at from 6d. to 1/- a tail, and some of the pig hunters became expert at making artificial tails out of raw hide, concealing them with the genuine ones in the bundles of twenty.

The kea, or sheep killer (Nestor notabilis) is a large green parrot originally herbivorous, but which has since the introduction of sheep acquired carnivorous habits. At the shearing muster of 1868 in the Lake Wanaka district, it was noticed that many sheep appeared to be suffering from an unknown disease. After much discussion in the whares as to the cause of those sores, scars or in some cases severe wounds on the back of the sheep, a musterer suggested they were inflicted by "a tame kind of parrot that haunted the tops of the ranges." Later a few shepherds "actually saw a parrot on a sheep plucking and tearing the wool and flesh on the same spot where so many had been fatally wounded." The kea hovers round a mob of sheep, selects its prey, settles on the ground and after hopping round for some time suddenly leaps on the rump of the sheep. "The tortured animal seeks to rid itself of the cruel persecutor that tenaciously clutches into the wool with its sharp claws," it tears wildly round the flock,

or madly downhill regardless of rocks and precipices, till "bruised by its numerous falls, utterly exhausted with its struggles and maddened by pain," it stumbles to rise no more. If there is snow on the ground the "poor beast flounders about till it gets into a snow drift and then it becomes an easy prey for the relentless bird." Since the kea usually attacks the sheep above the kidney, people thought the kidneys or kidney fat were the coveted delicacies, but in point of fact the kea eats whatever part of the sheep comes first, skin, flesh, then kidney fat, and they "certainly do not leave the sheep to die a lingering death while their hunger is unappeased, unless they are disturbed." The rump is attacked rather because it is the widest part and provides the kea with a firm platform to settle on, and offers the easiest target when the kea is flying behind the sheep. After being attacked most sheep die, from injuries to their internal organs or through blood poisoning, but some survive woefully disfigured. In the early years of the twentieth century a controversy raged as to the guilt of the kea. As the kea had been condemned on slight evidence George Marriner decided to collect information from large numbers of men who had actually seen the kea attack sheep, and from these reports he came to the conclusion "that the kea has not only taken to meat eating, but that it does actually attack and kill sheep for the sake of meat." All keas do not attack sheep, but the habit originally acquired in the Wanaka district has spread as far north as Amuri. The loss in the Lake Hawea region was estimated at 5 per cent. annually over the whole of the flocks. In the Amuri highlands in North Canterbury, the annual loss of 7½-8 per cent. was estimated to have risen to 15 per cent. in 1906. From 1877-90 when the pest was at its worst on Mt. Cook station, the kea losses were conservatively estimated at from 8-10 per cent. High country sheep owners who have high losses from snow and other causes, cannot afford these extra losses and wage eternal war on the kea.

In the late 1870's and early 80's Canterbury was threatened by millions of rabbits which were as bold as they were prolific. When the march of this mighty army seemed about to be halted by the icy snow waters of rivers like the Waitaki, nothing daunted, they became guerilla

troops and took to the mountains only to descend again on the other side upon the unsuspicious plains folk.

Rabbits were considered to be a feature of Old Country life worthy to be introduced into New Zealand. Sir George Grey presented the Canterbury Acclimatization Society with some silver grey rabbits in 1865 or '66, and for some years they continued to be turned out in various directions.

Mr Phillips of the Rockwood station notes in his diary that on July 16 "John saw a rabbit on the hill," and by 1867 there were sufficient to warrant a rabbit-shooting expedition, for in two days' shooting in July they shot 17 rabbits. As yet only a few isolated spots in Canterbury had been troubled by rabbits, such as an island in the Rangitata of about 900 acres, where rabbits had been let free and soon increased to such an extent that no sheep could be kept on it.

The real danger lay not from within, but from without on the north and south boundaries. The first rabbits were introduced into the north of the South Island by Capt. Kean of Swincombe station, Kaikoura. Twelve silver grey rabbits were turned out on his property, and in time overran this to such an extent that he could not carry any sheep and was practically ruined. From there they spread along the coast through Flaxbourne and the Awatere and thence through the Amuri district. Later rabbits began to multiply on the south side of the Waiau, so in 1888 a rabbit proof fence 50 miles long was erected from the sea to the dividing range. The landowners realized the necessity for preventing any increase of the rabbits within the fence and did all they could to kill them off. Some years later this precaution was neglected, and in the 'nineties the rabbits became very thick on the Amuri runs and these were not reduced till the high price of rabbit skins induced the rabbiters to wage a truceless war against the furred foe. When the rabbits began to increase at a dangerous rate, the Amuri Farmers' and Employers' Association decided to import and turn out such natural enemies of the rabbit as stoats and weasels. Later on several other associations imported more, but with little effect until the efforts of the rabbiters had greatly decreased their numbers.

As an example of what could be done by individual runholders we may take the Rutherfords. Having seen in

Australia what devastation rabbits would cause, they determined about 1888 to construct a rabbit proof fence from Rotherham through to the Hanmer river and down the Waiau and thence along the river to the boundary of the St. James' station, a total distance of about 45 miles. Duncan soon discovered that the part he erected with a mesh of 1½ inches allowed smaller rabbits through, so he pulled it down and substituted 1¼ inch mesh. This fence stood up to the 1912 snow storm and rabbits never got through the fence. On all the Rutherford stations it was the practice, however, to keep a rabbiter and dogs to destroy relentlessly any intruders. Thus rabbits have never caused anxiety on their stations. In later years the Hurunui Rabbit Board netted from the end of the Rutherford's fence to the Clarence and then out to sea.

Rabbits had been introduced into Southland and Otago since the beginning of the settlement, but they did not do very well. However, about 1864 some wild English grey rabbits were liberated in the sand hills near Riverton, a habitat ideally suited to burrowing. They bred with amazing rapidity; twelve years later Southland was infested, and North and Central Otago were fast becoming so. "In 1876 on one run where three years before hardly a rabbit could be seen, sixteen men and 120 dogs were employed on keeping them down and although 36,000 were killed in one year the numbers seemed undiminished. On another run 50,000 had been killed but the average weekly expense was fast ruining the owner."[7]

By 1881-2 rabbits were becoming numerous in South Canterbury but the people were unaware of the imminent danger, and one settler was even threatened with a summons to court for shooting a rabbit on the road. The sole exceptions were the Hamiltons of Clayton and Tripp of Orari Gorge, who, having seen the terrible effects of enemy occupation in both the Wairarapa and Lake Wakatipu districts, urged his countrymen to stem the advance of the invading hordes. On April 28, 1882, at a public meeting held in Geraldine to object to the Rabbit Act being brought into force in the district, a settler said "Rabbits are quite harmless if kept in check and afford good sport for the lads." The difficulty, that this and other settlers had to face, was how to keep them "in check."

The rabbits rubbed the grass bare to the roots, and by their burrowing and fouling of the ground by excessive deposition of manure contributed to the reduction of the growth of tussock, and by mere force of numbers completely deprived the sheep of pasture. Since they could not be kept in check by natural means, the climate not being severe enough "to cause heavy winter mortality through excessive cold, flooding of burrows or disappearance of food supplies, and there being no indigenous animals or birds of prey,"[6] man had to devise his own means. The Government, realizing the rabbit had become a problem of national importance, passed Rabbit Nuisance Acts in 1876 and 1882. By the first, a district could be proclaimed a rabbit district at the petition of ten landowners. Three or five trustees, elected with power to levy a rate of a halfpenny an acre to meet the necessary expenses, were empowered to send someone to destroy the rabbits by any means, excluding poison, on the property of any landowner who neglected that duty himself. This act depended for its success on local initiative and its administration was hampered by local rivalries and enmities. The 1882 Act did away with trustees, appointed rabbit inspectors to enforce the destruction of the pest, and imposed heavy fines on defaulters. Another and more voluminous act was passed in 1886, the fines were greatly increased; and rabbit districts were put in charge of boards of trustees elected by those owning 500 or more head of sheep and 100 of cattle. A rate of not more than a halfpenny a sheep and fivepence a head of cattle might be levied, and the Government would provide £1 for £1 subsidy on all money so raised up to £10,000. This act also gave boards the right to erect rabbit proof fences across anyone's land without compensation. Inspectors were to supervise the work of the boards.

By 1887 the rabbits had crossed the Waitaki, and had started guerrilla raids on the hill country between there and the Rangitata. At last, realizing the seriousness of the danger, the Government put up a wire-netting fence 80 miles long. Beginning at the Waitaki opposite Kurow, it ran up the Hakataramea Valley, then bore to the west and passed through Gray's Hills to the banks of the Tekapo river. Another section defended the gap between that river and Lake Pukaki; a third stretches from the head of the

lake up the Tasman valley to the base of the alpine country. Finally a small section between the Tasman and Dobson rivers guarded the flank of the fence from being turned. If such a fence had been made across flat and unbroken land, it might, if continually watched, have proved an impassable barrier; but the rabbits made their attack on the difficult country where swollen streams washed the fences away, crashing rocks broke it, and running shingle slipped beneath it. Although caretakers were employed to patrol the fence and destroy any rabbits found within half a mile of it on the Canterbury side, a few rabbits got through and joined the ranks of the pre-fence invaders. If the invasion was not entirely stopped, it was at least checked, and the runs to the north of it are much better grassed than those to the south of it.

In 1895 Tripp once more came to the fore with a scheme for erecting another fence north of the old one over a more extensive line from the upper reaches of the Rangitata to the Waitaki to protect the rest of Canterbury from the rabbits which had broken through on the McKenzie front. He organized the sheep farmers of South Canterbury, and presented a petition to the Government, who refused to countenance the plan.

Individual runholders, besides erecting wire proof fences and employing rabbiters and dogs, liberated stoats and weasels. These were collected in Lincolnshire and other districts of England and sent to New Zealand at a cost of from £2 to £4/15/- each; ferrets were bred in New Zealand at a cost of about 7/6 each. In 1888 the Government bought and turned out 367 ferrets and about 4,000 were released privately in Canterbury. Some people, fearing stoats and weasels might not confine their attack to rabbits, preferred ferrets and cats. Other methods are trapping, poisoning with phosphorized pollard and wheat or poisoned carrots, and fumigating the burrows with carbon monoxide and other gases.

Unfortunately the battle against the rabbit is still being waged, it is nigh impossible to completely eradicate it, and when, as in time of war, there is a shortage of labour, especially in the back country, the rabbit soon appears, sometimes in alarming numbers.

The back country of Canterbury is "a beautiful but

awe inspiring country in which the runholder may do well from the golden fleece; but the risks are great and though man with his ingenuity is great, Nature with its dynamic force is greater."[10]

Snow storms are a normal part of a back station, but there seems to be a cycle of about five or ten years when the snow is deeper, lasts longer, and the losses are greater. Man can prepare for them to a certain extent by seeing that his supplies of winter feed are sufficient for an emergency, but if the season has been poor and the crop of oats or hay is small, runholders are still caught unawares and the sheep die of starvation and cold. Bad snow storms occurred in 1862, 1867, 1878, 1887, 1888, 1895 (the worst of all), 1903, and 1908. Many of the runholders had had little experience of sheep farming let alone sheep in snow, and but for their Scottish shepherds many would have been in a very sorry plight.

The first bad snow storm in 1867 is described by Mr Phillips of the Rockwood and Point stations:

"*July, 1867. Tuesday 30th:* Heavy snow, a foot of it—1ft. deep at sundown.

Wednesday, 31st: Very severe snow, a strong wind, S.W. A fearful day, wind like an extra sharpened, double bladed superfine razor. Snow drifted 6ft. in places, average depth 13ins.—no wood to be got as barely enough to cook with—Jack prophesying end of world—to bed in despair.

August 1st: Rain, sleet, hail, snow, etc., etc. No fire all day, to bed at intervals, no tobacco, no water, limited supply of grub.

August 2nd: Same as yesterday only more so.

August 3rd: Thank goodness fine at last, sun making feeble efforts to shine, snow melting slowly.

August 4th: Fine morning but heavy snow from S.W. towards evening. An exhausted swagger arrived at midday, says he has been out since Monday and snow most of the time.

6th, 7th and 8th: N.W. snow melting."

At Lady Barker's (Broome's station) station in the Malvern Hills, the snow was 6ft. deep and 13ft. in the drifts, and Wednesday, 6th, being bright and sunny, they disinterred the dogs and went in search of the sheep. Near a small dusky patch close to the edge of one of the widest and deepest streams, there were found frozen sheep "embedded in the snow one over the other" and a "huddled up mob" of "drowning or just drowned sheep." "They all set to work, sometimes up to their knees in icy water, digging at the banks of snow above, if you can call it digging when they had but their hands to dig or scratch with." After six hours' work 1400 had been rescued and were "slowly trailing up the low sunny face nibbling at the tussock as they went." For several days all available hands, as well as some neighbouring cockatoos, were employed searching for sheep and doing the horrible job of skinning the sheep. The back country felt the storm even more severely, and even on the plains, though the snow did not drift to such a depth or lie so long on the ground, the losses were heavy as sheep took shelter under high river banks and were drowned or "drifted along before the first day's gale till they came to a wire fence where they were soon covered up and trampled to death." The losses among the flocks in Canterbury alone were roughly estimated at half a million.

The effects of the 1895 winter were nothing short of calamitous in a large part of Canterbury. "Bad winters and destructively heavy falls of snow have been known before, but such a succession of snow storms together with such protracted periods of frosty weather quite surpass anything of the sort previously experienced since the settlement of the colony." For ten weeks the sheep were practically destitute of food, and surviving stock were wretchedly poor—some totally bare of wool, others partly so,—and such wool as remained was light, broken and fluffy. Lambing was much below the average, on some runs practically none, on others from 20 per cent. to 30 per cent. Thus losses were not only in deaths, but also in light clip, poor quality of wool and bad lambing. Such was the evidence laid before the Board set up by the Pastoral Tenants' Relief Act to enquire into the losses and to recommend relief where necessary. The relief was to consist of remission of

rent or extension of lease, or revision of sheep rate. The total number of applications for relief in Canterbury—pastoral, small grazing runs, lease in perpetuity, and freehold—amounted to 160. Their stock at the beginning of winter had been 1,074,842 sheep, 606 horses and 1088 cattle, and the actual loss in excess of the usual average annual loss was 344,734 sheep, 58 horses, and 174 cattle, valued by the Land Board at £101,278 and to these 160 concessions were granted to the value of £59,578 and an additional £9,111 in extension of leases in certain cases. When leases of pastoral areas were under mortgage, the Board required that the mortgagee should make concessions proportionate to those proposed by the Crown or the latter would not be made.

With improved means of transport and communication, sheep owners can outwit nature by new methods. At the time of the 1903 snow Mr Jones of Mt. Nessing telegraphed to his Timaru agents to buy him 100 acres of turnips in the district. He then cleared a track with a snow plough he had made and drove the sheep down the seven miles to the Albury railway station.

Floods were another of Nature's weapons for wiping out large numbers of sheep. In February, 1868, there occurred the "big flood." For some weeks before, the weather had been very sultry and on February 2nd rain began to fall. It appears that about 8 inches of rain fell in the submontane district, an amount that would seem scarcely sufficient to account for the disastrous floods. Probably there was a huge accumulation of snow in the hills which, melted by the rain, poured down the mountain valleys to join the already dangerously swollen streams. Bridges were swept away, rivers broke their banks and roaring torrents spread across the plains for miles. Sheep, cattle, pigs, poultry, crops, fences, stockyards, household effects and farmyard chattels were all swept towards the sea. "When the flood abated, a desolate picture met the eye, houses levelled with the ground, crops silted over and buried, fences washed away, and the carcases of drowned sheep and cattle strewn in every direction. The face of the mountains was seamed with great scars that took many years to heal."[7] From all parts of the province came reports

of damage, miraculous rescues and sad drownings. The total damage in the province was estimated at £10,902.

Perhaps the credit of successfully establishing sheep-farming in Canterbury and of bringing her through her many disasters, is due to the Scottish shepherds. Few of the early squatters knew anything about sheep and some were ignorant to an extraordinary degree. Certainly, the Shagroons had had experience of sheep, but not in snow country.

In the 'sixties when the vanguards of the invasion of shepherds from the Highlands and Borders first began to arrive, the squatters "hailed them as a heaven sent blessing." However, as late as 1863-6 Bealey, as Superintendent, instructed the emigration agent in London to discourage Scotsmen from coming to Canterbury as they were "too thrifty and industrious." Rolleston wisely reversed this policy, and specially requested the agent to obtain Highland crofters and shepherds to build up the country districts of Canterbury. Moreover, recognising that shepherds would be unwilling to be separated from their valuable collies, he allowed £5 per dog for every such animal accompanying its master. T. D. Burnett sums up their contribution to the development of Canterbury, "Scottish trained shepherds cleaned up the country of scab, knocked system into the management of flocks, regulated the lambing time to the only natural time—spring, began to do something to waken the conscience to the danger of overstocking, began to draw attention to the need for wintering the flock on the safest country, and started to grow more wool from the sheep."

CHAPTER VII

The Sheep-owner and the Land

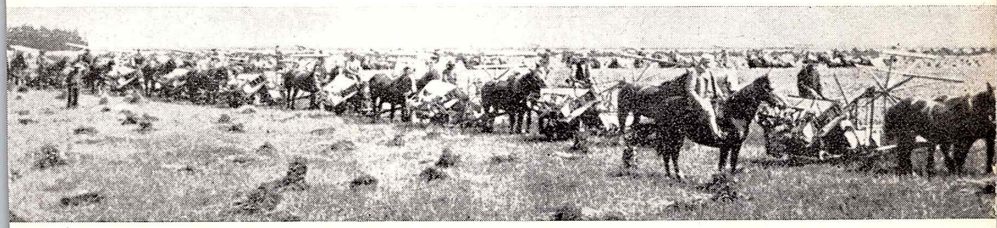
THE squatters were interested in the land mainly from the point of view of the number of sheep it would carry and the amount of wool it would produce. On arriving at their runs, they would have a grand "burn off" in order to destroy the rank accumulation of dead tussock and the scrub. And when they saw that the sheep would eat the tender green shoots, but found the tussock unpalatable, ignorant of the existence of small palatable plants growing in the shelter of the tussocks, they began the practice of regular burns.

In deciding when to burn, many things have to be considered, such as whether your country is late or early, and the state of your neighbour's country. In warm and early country with a small rainfall a burn in early spring is best, as fires, unless very strong, will die down about 4 p.m. In wet and cold country, it is a case of burning whenever you can in early summer. Unfortunately many runholders used the fire stick at any time including hot nor'-west days when they could get a good spectacular burn, with the result that the roots of grasses were badly scorched and in some cases completely destroyed.

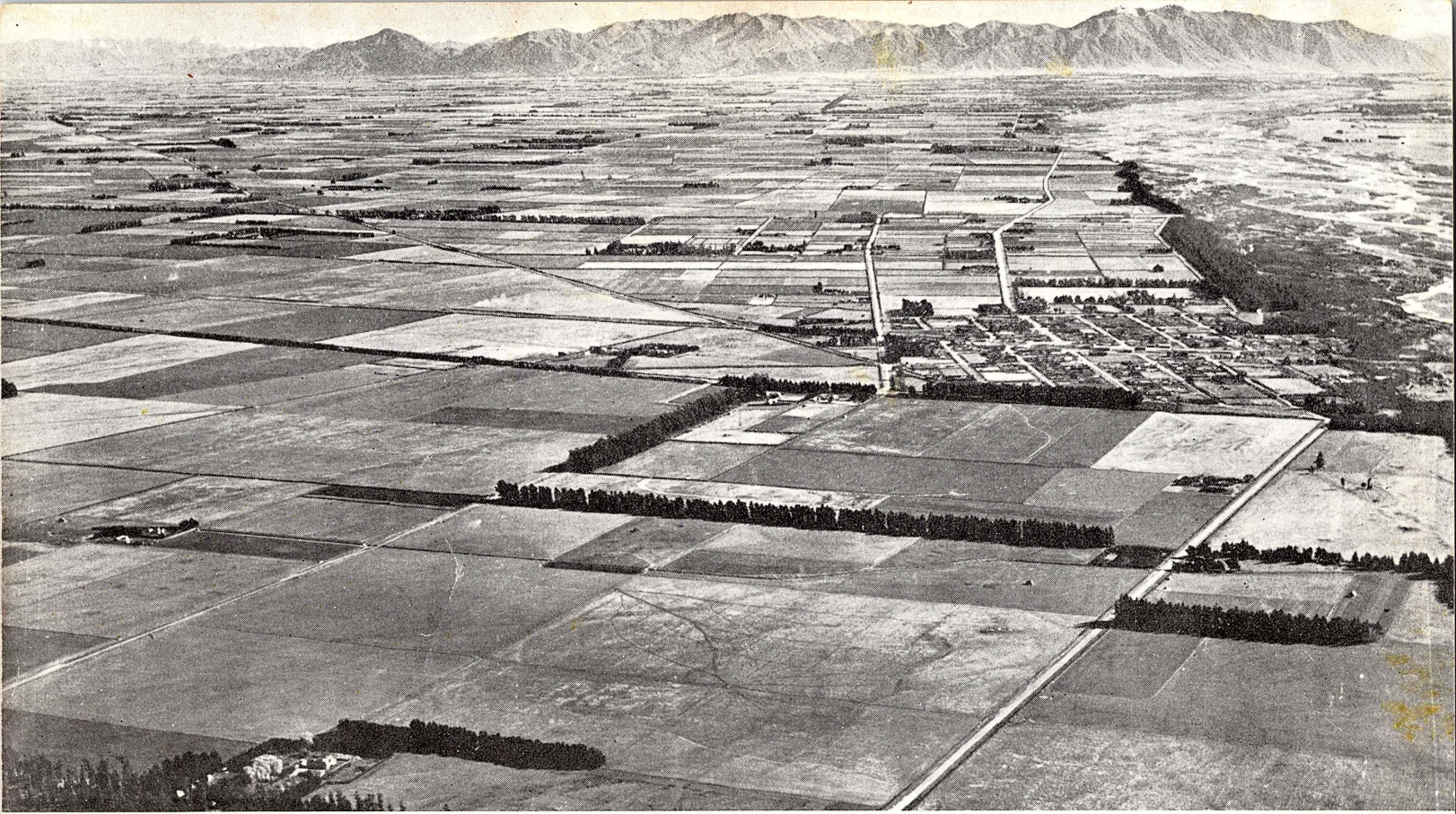
At Malvern Hills burning was usually done from September to November, but if the snow had lain longer on the ground the grass would not be dry enough till December.

"It is useless to think of burning unless there is a pretty strong nor'-wester blowing, but it must not be too violent as the flames will fly over the grass, just scorching it instead of making a clean burn. . . . Having ascertained that no sheep are in danger of being made into roast mutton before their time, we begin to light our line of fire, setting one large tussock blazing and lighting our impromptu torches at it, and then starting from the head centre, one to the right and the other to the left, dragging the blazing sticks along the grass. It is very exciting

A wool waggon, Cheviot.



Bonanza Wheat Days—19 reapers and binders on Cameron's Springfield estate.



Looking across Canterbury Plains—Rakaia on right. [Photo: V. C. Browne

amusement and the effect is beautiful, especially as it grows dark and the fires are racing up the hill. The immediate results of our expeditions are vast tracks of perfectly black barren country, but after the first spring showers a beautiful tender green tint steals over the bare hillsides, and by and by they are a mass of delicious green grass, the favourite feeding place of ewes and lambs."[9]

Burning had to be done very carefully as fires were no respecters of boundaries, and sometimes the wind would drive flames and sparks in the wrong direction and then there followed a terrible combat with the fire, making fire breaks, and beating out the tearing flames. If it crossed a neighbour's country the runholder would have to pay compensation for the damage which might be considerable, especially if sheep had been killed or scorched by the flames. In 1858 a tussock fire, started at Anama, travelled to the coast at Coldstream. What a terrible sight it must have presented and what desolation it must have left in its train!

On the treeless plains of Canterbury, one of the greatest needs was to provide shelter for man and beast against the nor'-west and sou'-west gales. Round homesteads shelter belts were planted and in the garden and orchards ornamental shrubs and fruit trees.

In 1850 the Deans imported from London 1½ bushels of haws, 7lbs. of Scottish fir seed, 7lbs. of larch, 7lbs. of spruce, 7lbs. of alder and 4lbs. of birch. It was on the small farms that most of the planting was done, as the squatters did not feel inclined to spend money planting Government land. To encourage the planting of trees on rural lands, the "Planting of Forest Trees Ordinance" of 1857 entitled every tenant of more than 10 acres to transplant, cut down and remove or to receive the value of all trees planted and registered by him. This, however, did not prove very satisfactory, and was replaced by a new ordinance in 1871 which entitled persons to receive 2 acres of rural land for every acre planted, the area so granted not to be less than 20 acres nor more than 250. This act was amended the next year, and land orders up to the value of £4 for every acre planted replaced grants of land.

John Hall of the Terrace station was one of the pioneers of tree planting on a large scale, and in 1898 he

had at Hororata 280 acres in plantations which were about 25 years old. He planted belts of trees in such a way as to give the greatest protection from the prevailing winds. At first he, like other settlers, had many failures in his planting as they did not know what trees were best adapted to the climate and soil. Variety was sought after and the selection of trees was generally as follows. In the first row from the windward side was Cupressus macrocarpa; then three rows of Pinus insignis; two rows of Spruce, Scotch fir, or Larch or Oregon pine; the front row consisting of oak and silver birch as these settlers missed, in this land of evergreen native trees, the autumn glory of the English woods. At the same time Mr Hall planted some bluegums and wattle, but these did not survive. Later experience showed that the bluegums could not withstand the frosts of the elevated part of the plain. Other eucalyptus trees like the peppermint gum and weeping gum withstand frosts better, but the most consistently frost-proof is the Cider gum or mountain variety of Eucalyptus gunni. Macrocarpa provided excellent shelter, but took a long time to grow. The larch was unsuited to the dry stony soil and dry climate; the spruce required more moisture; the Oregon pine could not stand dry summers; oaks and other deciduous trees grew slowly in light dry soil and did not provide quick shelter. Finally, by a process of trial and error it was found that Pinus insignis could resist frost and drought and could flourish in poor soil, and so in subsequent years almost nothing but it was planted.

While new land was still being discovered and selected for runs, and while the runs were only half-stocked, there was no incentive to break up the land and grow English grasses, but in the seventies runholders increasingly began to purchase the freehold of a few hundred acres for the purpose of laying down English grasses. The natural pasture improved where it was closely fed, but when stock were not confined in paddocks this occurred only in scattered patches. The breaking up of the land, though it progressed slowly, had been started by the Pre-Adamites. The Deans used to burn off the fern and bracken that covered part of their land and sowed grass and lucerne, while the tussock land was frequently ploughed and was sown down with

grass after the first green crop. Both these types of land when treated in this way had a greatly increased carrying capacity.

In 1859, at Simon's Pass station the first attempt was made at sowing English grasses in the Mackenzie country; but it was not a success. From that time on persistent efforts have been made to surface sow with English grasses, but with only varying degrees of success. Cocksfoot, white clover and crested dog's tail have proved the best.

With the exception of Moore of Glenmark, the Dixons of Eyrewell are the only people who have tried the experiment of sowing tussock seed. They did this on the manuka country to give shelter to the finer grasses. They were great pioneers in improving the manuka country, and spent a lot of money in cutting the scrub, crushing it down with rollers, and ploughing it with swamp ploughs.

The clearing and breaking up of land for cultivation or permanent pasture was a difficult business especially in swampy areas. In the early days the job of clearing had to be done by hand with a mattock. After the ground was cleared and burnt they ploughed it with a single furrow swing plough, then either harrowed it with a wooden frame tine harrow or sowed by hand on the furrow. If they had harrowed it before sowing they then put a brush harrow over it, otherwise they worked the seed in with a tine harrow. Next they often drove sheep to and fro across it to act as both harrow and roller. In later days after the tussock was burnt, the scrub, matagouri, flax and cabbage trees grubbed out, stones removed, rushes and heavy tussock chipped off, the land was skim ploughed about 2 inches deep and 12 inches wide, the furrow being turned as flat as possible, then after the winter frosts had mellowed the furrows, turnips were sown and eaten off with sheep, then the land was cross ploughed and worked and sown down with rape and a mixture of English grass.

About the 'seventies thousands of acres of tussock country were being broken up for the purpose of sowing English grasses. On their freehold property in Waimate the Messrs Studholme were breaking up some 20,000 acres early in July, 1872, no less than 18 double furrow ploughs being in constant work aggregating per week, from 250-300 acres of ploughed land. It was estimated that land which

in its native state would support one sheep to an acre or even three acres, would, if judiciously sown with English grasses, support three sheep to an acre. This increase in carrying capacity was being brought about, not only by large and small freeholders, but also by runholders, who were laying down English grasses on hundreds of acres by surface sowing as well as breaking up the tussock, and who were subdividing their runs and becoming paddock farmers on a large scale.

A common method of getting tussock land broken up and sown with English grasses was to let the ploughing on contract and to pay 10/- an acre as the work proceeded. The contractor was allowed to sow wheat in the ploughed land on his own account, supplying his own seed, while the owner supplied the grass seed which was sown at the same time or sometimes after the wheat. This system was especially used on large estates like the Levels where 12,000 acres were broken up in 1874.

Ideas as to the best grass seeds for farming a good pasture have been modified by experience as these two mixtures show:—

Recommended in 1851 For good average soil.	lbs	**Recommended in 1881 For strong lands.**	lbs.
Rough stalk meadow grass	2		
Wood meadow	2		
Crested dog's tail	1	Dog's tail	3
Hard fescue	1	Hard fescue	3
Golden oat	1		
Sweet scented vernal ..	¼		
Fiori	1		
Cocksfoot	2	Cocksfoot	4
Smooth meadow	1		
Meadow fox tail	2		
Timothy	2		
Perennial rye	4	Rye	6
Meadow fescue	2	Meadow fescue	3
White clover	2	Mixed clovers	6
Perennial red clover	2		
Cow grass	1	Twitch	1
	26¼		26[11]

The laying down of a good pasture is a matter of much patience, time and money, and as this old couplet says:—

"To break a pasture will make a man
But to lay down a pasture will break a man."

Except on the rich coastal lands, pasture after being grazed for several years becomes worn out, but not till the days of refrigeration did it become profitable to introduce rye grass and clovers into a system of rotation with other crops, and thus increase the fertility and carrying capacity of areas laid down in English grasses.

A hundred years ago much of our best agricultural and sheep fattening country was swamp land covered with dense growth of native flax, nigger heads, and other coarse native vegetation. It must have taken much courage and foresight for men like Grigg of Longbeach, the Studholmes of Waimate and numerous smaller farmers to buy these swamp lands and convert them into fine pastures by large drainage works.

The first swamps to be drained were those in the vicinity of Christchurch; about 1860 the first two miles of main drains were cut in the Rangiora swamp which extended over 4,000 acres; two years later another two and a half miles of drains were added and also several branch ones.

Round Lake Ellesmere the swampy land began to be settled about 1862 by pioneer farmers who bought small freeholds. These early settlers, hardy and practical farmers, were endowed with courage and perseverance and hence succeeded in converting this wild inhospitable swamp into one of the most fertile spots in New Zealand. When John Grigg bought the freehold of 30,000 acres in 1864, Longbeach was then a valueless bog. About 1867 he started draining it and he had surveyors who waded through the swamps and took levels everywhere so that he could find the best places to cut drains. Next open drains were cut at convenient distances, and after remaining in this condition for two years, clover and grass seeds were sown by broadcast hand seed sowers; previous to the sowing the rough patches were burnt off. Meanwhile cattle and sheep were allowed to wander at will over the land in order to consolidate and level the surface.

When the Studholmes took up Waimate the land near the sea was intersected by winding, boggy creeks and covered with swamp vegetation. The main swamp extended from what is now Willowbridge as far north as Makikihi river; there were thousands of acres of quaking bog, impassable except in some places where a man could jump from one niggerhead to another. After difficult and costly draining operations, this practically useless coastal land was transformed into rich grazing and agricultural land.

Owing to the irregular rainfall, hot dry nor'-westers and the porous gravelly nature of the soil, a deficiency of water for domestic use, stock and crops has always been a problem in Canterbury. In a report on "The Scarcity of Water" by two civil engineers on October 16, 1878, it was stated that "one large farmer had to cart his water 10 miles and Mr D. Every, a contractor, kept a team going every day fetching water. Everywhere drays were to be met carrying iron tanks, some few had sunk wells and gone over 200 feet in depth. A small minority had constructed concrete tanks but these were poor substitutes for an ample supply of water running through the district."[10]

Most of the runs on the plains fronted on to some river, where the homestead and sheds were built, and then extended half way to the next river where they backed on to another station. When wire fencing was introduced in the early 'sixties, the practice was to divide the run into three, the ewes and lambs had one block on the river, and the hoggets the other, and the wethers were given the country at the back. There are no creeks between the Rakaia and Ashburton except near the sea and just under the hills, so the Merino wethers never saw any water unless it rained or when they were brought in to the paddocks at shearing time, and they did very well without it.

By the construction of water races, these dry sheep runs have been subdivided into smiling farms and the waste places have been peopled. When the runs were first open for selection there were 34 in the Ashburton county and now outside the Borough of Ashburton there are 2,900 lessees or owners. The first six miles of water races were constructed by Mr Charles Reed on his Westerfield property, in 1869. In the early 'seventies Mr Duncan Cameron of the Springfield estate, on the other side of the Ashburton North

river, constructed four miles of races on his property, but not till 1876 did he commence his great scheme of taking water in open races over all sorts of land. Mr Cameron was his own engineer, and in 1876 he constructed a water race which had its intake at the upper end of the plains and was 13 miles in length. The immediate result was so satisfactory that he went on increasing his mileage till by the year 1880 there were almost 40 miles of water races running through Springfield. Mr Allan of the Acton station, took water from the Rakaia for irrigation purposes. Another pioneer in the movement for the construction of water races was Mr Mathias of the Racecourse Hill estate, who converted the property into one of the finest in Canterbury with water races running through every paddock, and who, as chairman of the Water Race Committee of the Selwyn County Council, was one of the leading spirits in the formation of the water race system which has resulted in such material benefit to Canterbury.

In the Kirwee district where farming was rendered uncertain by the lack of a regular water supply, the pioneer was Colonel Brett. While serving in the Indian Army he had noticed the extensive irrigation scheme and felt convinced that a similar scheme would be applicable to the plains. Although the slope was sufficient to carry the water down to the sea and although there was an ample supply of water in the rivers, many argued that the porous soil and consequent seepage and the evaporation in summer would render the scheme impracticable. After seeing what Reed had accomplished at Westerfield, Brett with great determination continued his campaign in the arena of the Provincial Council where he represented the Selwyn District from 1870 to 1876. With the support of Sir John Hall, who, with experience of drought in the area between the Hororata and Rakaia rivers, knew only too well that large tracts of the hinterland were "now almost worthless in consequence of an entire absence of water," Brett persuaded the Council to appoint a commission. Mr. Fooks, who had been in charge of Reed's project, was given the task of investigating the possibility of diverting part of the Waimakariri river from the lower gorge across the plains to Rolleston. Fooks surveyed the area bounded by the Kowai, Hawkins and Waimakariri rivers. The last was

ruled out immediately because its channels changed with every flood and its terraced banks created too many problems. The only alternative was the Kowai which flowed into the Waimakariri east of Springfield and had a settled course and reliable volume. He also advocated the use of an open channel which Reed had found successful, since the clay pan and impervious layer of silt prevented seepage.

As so often happens, the report was received, then laid aside in some dusty office while the more pressing matters of roads, bridges, railways and sheep ordinances were attended to. The disappointment of hopes dashed to the ground can be discerned in the indignant words of a small freeholder, "It is easy to understand why those who do not at heart desire to see the waste lands of the Crown sold, and the plains covered with homesteads, instead of here and there a solitary sheep station, should oppose this scheme, but it is to be hoped in the interests of the province that more enlightened counsels will prevail, and that subject which is one of the most important that ever came before the public of Canterbury will receive at the hands of our representative the attention it deserves."

Undaunted by this temporary failure, Brett took up the struggle in the House of Representatives. In 1874 he saw a statute passed which gave the Provincial Council legal powers to control the water supply, a necessary prerequisite to the construction of water races. Armed with this statute, Brett finally persuaded the Council to inaugurate its system of water races and by 1881 the plains between the Hawkins, the Selwyn and Waimakariri rivers were drawing water from the Malvern race. One arm stretched to Kirwee and thence to Rolleston and the other in the direction of Norwood and the Selwyn river. As water reached from one farm to another, public support of the value of stock races, closer settlement and the rising value of the land, all proved that Brett's struggle had been worthwhile. In recognition of his services the farmers of the district made him a presentation in 1887 and later erected at Kirwee a monument which commemorates for all time his work in bringing water to the plains.

Mr Reed's object was to take water from the Ashburton South stream, water his paddocks and empty the races crossing the light plains country into the Hinds, but

although he died before his scheme was completed, he proved that even on the shingly soil open races were successful and need not be piped or concreted. About 1879 the Ashburton County Council began the construction of water races by building a dam and weir across the Pudding Hill stream in the low hills and 32 miles of races to Dundas, near Chertsey. Two years later a second supply was taken out of the north branch of the Ashburton river and a third supply was secured from the river near Winchmore. In 1900 the works included a small supply from Taylor's creek and one from Mt. Somers wool shed creek, and there was a total of 2-3000 miles of races in the County.

Arthur Dudley Dobson, writing in 1884, says, "Since the first opening of water races in the Malvern, Ashburton and Hororata districts a new era may be said to have commenced in the occupation of the plains. Homesteads are springing up and lands are being brought into cultivation which were previously untenable, but which are now supplied by sparkling rivulets radiating from several headworks." Those works constructed primarily for purposes of watering stock and domestic supply only, had conferred such great benefit that extensions were demanded.

There were two different schemes for supplying water; on the plains in the Malvern district the total quantity delivered into the races was considered sufficient to supply a given number of blocks of land and the water was gauged off on the weirs. The water was then conveyed away from the main races by races constructed by the owners of the land. In the Ashburton and Hororata districts, the county races ran through private lands where it could be used only for watering stock, the land owners were bound to protect the races from injury so that they might carry the water as far as possible till it was all consumed. This last scheme is more profitable "as a little stream will flow many miles losing very little by what is consumed by cattle and wasted. by percolation and evaporation." To get the most out of the water under that system it was necessary to construct branch lines to intersect the land between the main lines, but these were not built till the land was held in smaller holdings.

It was estimated that the stock carrying capacity of the Ashburton plains increased 33 per cent. and Malvern

district 50 per cent since the introduction of water races, the difference no doubt due to the greater amount of water allowed in the latter district. Moreover, after the inauguration of the frozen meat industry there was a vast increase in the number of stock kept by farmers, and for fattening stock it was essential to have abundant feed ensured by well watered meadows. Finally, ploughed land wetted occasionally was not so liable to be blown away by the nor'-westers and farmers were no longer entirely at the mercy of the seasons.

In the Eyre district the leading spirit was Marmaduke Dixon of Eyrewell. When he first settled there, he was confronted with the problem of providing water for his run. "He rigged up a windlass and a bucket on a rope and when he had filled the bucket he climbed out of the well and pulled the bucket after him." Thus single-handed he dug a well 80 feet deep after which the station was named. To irrigate his land he planned to build a dam and intake at Brown's rock on the Waimakariri and lead the water through the land on the north bank. In 1887 he started an irrigation farm near the Waimakariri and by the time of his death eight years later, he had 1,200 acres watered. Although the heavy costs had prevented him from carrying out his original ambitious plans for irrigation, and although the intake constructed for the Waimakariri-Ashley system was carried away in the 1895 flood, yet his work did not end there. His enthusiasm had led to the establishment of the Waimakariri-Ashley Water Supply Board and in 1896 the Eyre water race was constructed.

Charles Tripp came to the fore in this matter also, and in 1881 he wrote "It is my wish, if possible to see the Geraldine County Council irrigate the plains as the Ashburton County are doing." About a year later the Council discussed a scheme for irrigating the Orari plains, the Levels and Waitaki district, and finally undertook the work.

By 1908 in the Geraldine County there were 260 miles of races watering 71,212 acres, in the Levels 71 miles watering 19,000 acres, in the Mackenzie 35 miles watering 9,400 acres, and in the Waimate 125 miles watering 23,398 acres. Thus by the turn of the century most of the plains

from the Ashley to the Waitaki were intersected by life giving water races.

Once people had seen the improvement wrought by the many miles of water races, they began to dream of the transformation that would be brought about by irrigation. In 1886 the Ashburton County Council first discussed irrigation, and the following year they decided to make experiments with watering the land. A reserve of 94 acres at Elgin was chosen for the "Irrigation Farm." The experiment proved a great success and in May, 1888, samples of the prolific growth from the controlled water supply were shown in Friedlander's store. After two years the Council considered that "the benefits to be derived from irrigation having been clearly demonstrated, further experimentation was unnecessary,"[10] so the farm was closed.

Whenever bad droughts occurred, as in the summers of 1890-91, 1896-97, 1897-98, the farmers who saw their stock satisfying their thirst at the cool water of the races, hated to think of the almost unlimited quantity of water flowing idly to the sea "which water might, by the exercise of no superhuman amount of energy and skill, be diverted to the purpose of rendering droughts a thing of the past, and failing crops and withering pastures, contingencies no longer to be dreaded."

Mr Allan, manager of the Acton estate, was enthusiastic about irrigation and he suggested to the Ashburton County Council that he should obtain water from the Rakaia for irrigating the estate and neighbouring farms. By 1895 it was agreed that the Council would pay half the cost of constructing the main and sub races after the scheme had been operating for three years.

On the Acton station 400 acres were annually watered, without any elaborate system, the water being taken wherever it would go and allowed to flow over the land. The water was chiefly applied to grass and clover, and the extra growth enabled 9,000 lambs to be sent to market between 1894 and 1896, whereas without irrigation at least half that number would have been sold as stores.

However, in spite of the success of these experiments on the one hand, and of the shortage of feed and failure of crops in dry summers on the other, no large scale irrigation works were constructed till 1940.

SHEEP AND SHEEPMEN OF CANTERBURY

IN RE IRRIGATION

O Rakaia, O Rakaia,
Thou giant of the plain,
With speed terrific rushing forth
From the Southern Alpine chain.
Thy melted snows in fury wild
Down precipice and hill,
Come out in channels deeply filed
Thy course Rakaia still.

Yet thou giant, dread of nature,
The active mind of man,
Which subdues and tames each creature,
To use thee too, shall plan.
And first two splendid bridges high
Across thy bed he throws,
And then from mountain ridges nigh,
Thy stolen wealth that grows,
And whirling down each wave of thine
Buried in sea remains,
He'll rescue from the eddies fine
To fertilize the plains.

With wise and cunning hand he'll guide
Streams from above the gorge
And spread the tiny brooklets wide
Past orchard, farm and forge,
Where silence reigns, nor song of bird,
Nor tree kind shade supplies.
In leafy groves sweet notes are heard
And children's voices rise.

And see, where once the tussock grew
On the poor stony soil,
And widely grazing sheep but few
Repaid the settler's toil,
Now fields of clover, oats and wheat,
Wave in fresh'ning gale,
Thousands of sheep contented bleat,
And harvests never fail.

O Rakaia, O Rakaia,
Thy treasures quickly yield,
Arise O man, and use this power
To bless both hearth and field.

CHAPTER VIII

Refrigeration—the Beginning of a New Era

WHEN the runs were fully stocked and no new stations were being taken, Canterbury sheepowners were presented with the problem of what to do with their surplus stock. Even with prices ridiculously low they could not be sold. Mr Jones of Waiau bought 1,000 Merino ewes for £50. The old sheep had to be got rid of to make way for the younger, better sheep. One runholder on Parnassus at that time killed and skinned 5,000 Merino wethers and threw the carcases into the Waiau river. St. Leonard's station in 1869 had a boiling down plant and received between 5/- and 8/- per sheep from the fat and skin, provided, of course, the sheep were fat. It took time to skin old sheep, and then the carcases were difficult to get rid of. On one occasion 5,000 ancient Merinos from the Levels, were driven over a cliff at Washdyke into the sea.

Boiling-down plants were profitable only for big stations like Glenmark and Longbeach. The problem was partly solved for Canterbury when J. Hayhurst started boiling down factories at Milford in January, 1870, and on February 10 the first consignment of fat, between one and two tons, was sent from the works, and when the New Zealand Meat Preserving Company was established in December, 1869, and commenced operations in March, 1870. In the first three months 47,000 sheep were put through the vats. On January 16, 1871, meat preserving was started, "and considerable quantities of tinned meat, such as corned beef, cheek soup, tail soup, bovilli, ox tongues, etc., were turned out." Mr Main had a boiling down plant at Kaiapoi in 1869 and there was another one established by the Belfast Company. These and other small plants probably relieved the market of some 5,000 sheep weekly, but they were not sufficient to prevent overstocking in North Canterbury.

When the discovery of gold on the West Coast was proclaimed abroad in 1865, the fever gripped men's hearts and the rush started. These eager gold seekers who braved

the dangers of treacherous rivers, mountain passes and dense bush, or stormy seas and fickle sand bars were soon followed by a courageous band of men who brought food, food, glorious food. Mobs of sheep and cattle, especially from North Canterbury, were driven over Harper's Pass and down the Teremakau, others were taken over Browning's Pass, but when the Arthur's Pass route was opened these were given up. Taking sheep to the West Coast was by no means an easy task. An old drover recalls meeting some men on their way back to Canterbury after suffering many disasters in the Teremakau. "They had scarcely any clothes on, just trousers and under-vests all tied with flax. They had lost some sheep and all their spare outfit on the packhorses, their cooking things, clothes, tucker and tent." Moreover on the passes, the weather would change rapidly, temperatures fall and blizzards make travelling unpleasant and even dangerous. To meet the demands of the trade the station owners erected a slaughter house and sold mutton to the miners. When a new mob arrived we can imagine the hungry miners clamouring around the shed to get a tasty piece of fresh mutton. "Those who could pay, did so, but many were unable to, and they received their supplies on the promise that if they made good, they would pay on their return. Many did so, the payment being made in dirt or small nuggets. Many of course never came back, or at all events did not pay."

However, at this stage many farmers were still wholly dependent on the revenue obtained from the wool clip. When prices were high, the situation was bright, but woe betide the sheep owner when prices fell. Wool was the only product for which there was an assured market; the mutton required by the population was a mere trifle compared with the number of sheep; the animal itself was a mere by-product. "As the glorious 'seventies flickered out, and the dark days of the 'eighties dawned, there was not a ray of hope on New Zealand's horizon."[12] The land boom had burst, the price of wool had fallen, and town and country were faced with ruin. Refrigeration transformed everything, "the markets of the world were brought to the gates of Australia and New Zealand," the fortunes of the farmer were suddenly changed, and the small man began to clamour for more land.

REFRIGERATION—THE BEGINNING OF A NEW ERA

Refrigeration of meat was first invented by a Sydney chemist, who in 1867 exhibited some beef which had been thoroughly frozen and kept in a congealed state in tanks for five months and showed no signs of decay. He also stated that he could fit a ship with the necessary apparatus so that meat could be transported to the other side of the world. Refrigeration by means of cold dry air was first made practicable by J. J. Coleman. The Bell-Coleman Mechanical Refrigeration Company was formed in England and in 1877 secured patent rights.

The pioneers of refrigeration in New Zealand were the New Zealand and Australian Land Co., of Edinburgh and their New Zealand superintendents, Messrs Davidson and Brydone. Just after relinquishing his position in New Zealand and returning to Scotland, Davidson discovered that Australia had been successful in sending a cargo of frozen meat to England. Immediately realizing the tremendous possibilities of this experiment for New Zealand, he investigated the matter and persuaded his Directors to make a trial shipment. Once having secured the co-operation of the Albion Shipping Company he arranged with Messrs Bell and Coleman to fit the sailing ship "Dunedin" with a refrigerating plant. Meanwhile, Brydone, full of enthusiasm for the new project had visited Melbourne and Sydney to inspect Australian refrigerating plants. Then they both returned to Dunedin to supervise the preparations for the memorable voyage.

The sheep for the experiment came from the Company's Totara estate near Oamaru, and the surrounding districts. After being slaughtered in specially erected killing sheds at Totara, they were hung in a large cooling shed each night and loaded at 4 o'clock next morning into railway vans whose floors were covered with loose ice. After arriving at Port Chalmers the carcases were frozen on board. On December 7 Davidson and Brydone personally stowed away the first frozen sheep ever loaded in New Zealand. All went well till a fracture in the engine's crank shaft stopped the work and they were forced to sell 641 sheep then in the chambers and the 360 already killed. Thus New Zealanders themselves were the first consumers of their own frozen meat. Undaunted by this initial failure, they started all over again and on February 15, 1882, with

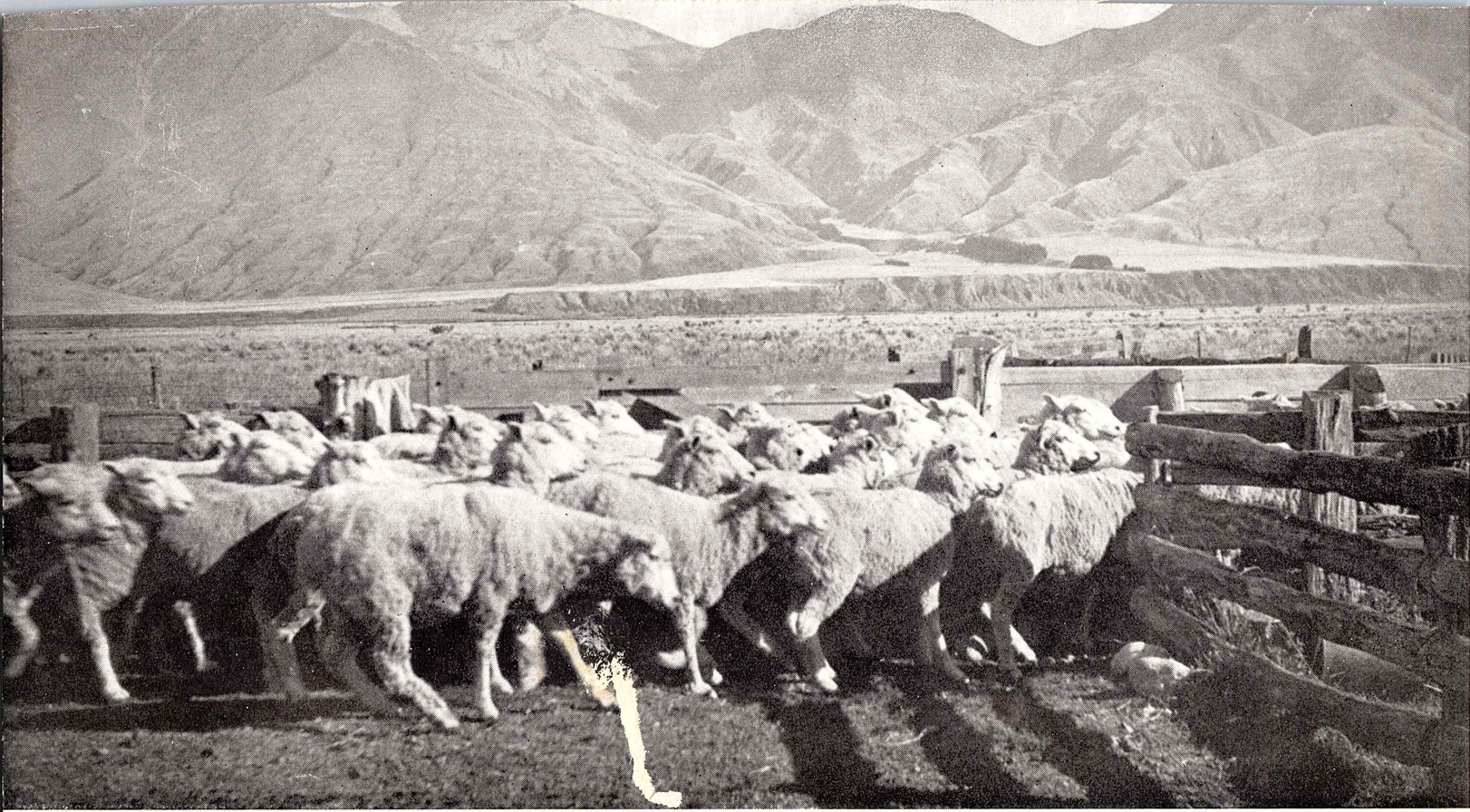
mixed feelings of rejoicing, optimism and trepidation they watched the "Dunedin" sail down the harbour with her precious cargo.

Much greater was the rejoicing, however, when they heard the thrilling news of her safe arrival in London on May 24. Gradually reports came back telling how Capt. Wilson looking very strained and careworn entered the shipping company's office and related the vicissitudes of the voyage. The captain's anxiety for the cargo was aggravated by the dread that the masts would be burnt, as sparks from the funnel set fire to the sails on various occasions. Then in the tropics, the ship for a long time was on one tack and owing to its steadiness the cold air was not sufficiently diffused amongst the carcases and the temperature in the upper chamber remained so high that the engineers were almost in despair. At last the captain determined to alter the defective circulation of air and crawled down the main trunk. This nearly ended in tragedy, for when cutting an opening for the cold air he became so benumbed by frost that he was only rescued by a mate crawling in behind him and attaching a rope to his legs and pulling him out.

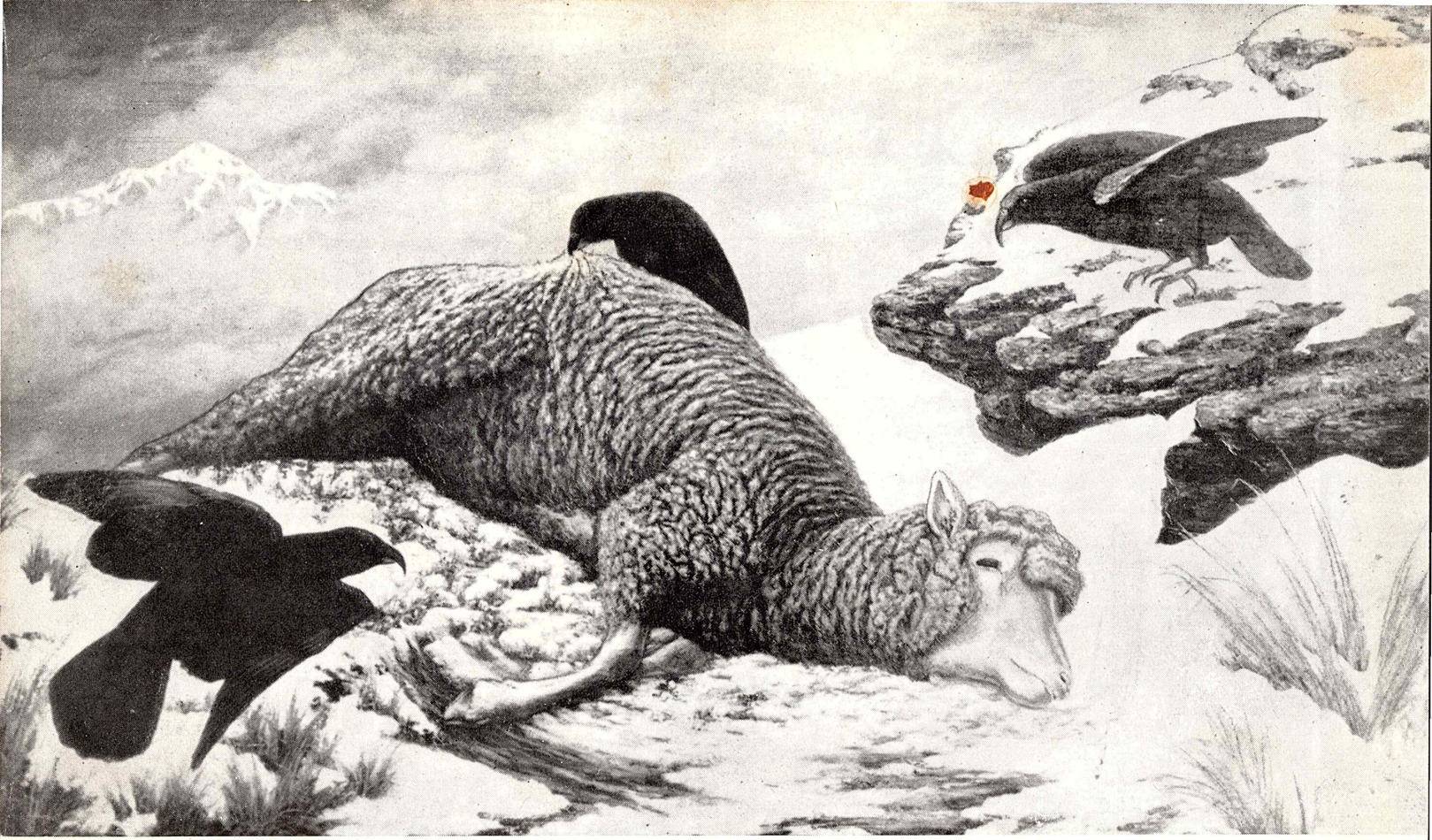
The cargo arrived quite safely at the London Docks and its sale at Smithfield was arranged for. At first the salesmen were somewhat dubious, but when they saw the fine big sheep which were as clean and bright as newly killed mutton they quickly changed their opinion and pronounced it as perfect as meat could be. "The prodigious fact was that fresh meat from the Antipodes had been landed in London in a perfectly sound and wholesome condition." And prodigious it was for the colonial meat industry.

Agriculture and grazing were revolutionized. Farmers, freezing companies and shipping companies enthusiastically co-operated in developing this new industry.

Canterbury, of all New Zealand districts was the most vitally concerned with the new industry; to her, it meant new life and hope. The Canterbury Frozen Meat Co. was formed in 1882 and its works were built at Belfast, a few miles from Christchurch. Slaughtering began on February 16, 1883, and in April the first shipment was made from Lyttelton by the S.S. "British King." In 1888 the Christchurch Meat Company was formed with its works at



At the end of the day. [Photo: John Pascoe



A victim of the Keas. [Alexandra Museum, Wanganui

Islington. Other works were built later and the frozen meat export trade became an integral part of sheep farming. But before this integration was completed, much had been transformed.

New breeds, new methods, and new farmers.

The time had come when the Merino, the ovine king of New Zealand, would have to give way to sheep of less regal pretensions but more adaptable to the new order. The Merino, eminently suited to native grasses and large runs, was not a suitable animal on which to build an export trade in meat. It has the advantage of a small frame but it is leggy, bony and very difficult to fatten. Moreover, the usual breeds of mutton sheep, i.e. English breeds, would not do well on the native tussock; so small paddocks with English grasses had to be provided.

Since the Merino was the principal sheep in Canterbury, and since it would have been too expensive to import entire new flocks, cross breeding was attempted in order to produce a sheep that matured early as well as produced a good fleece. As Canterbury had previously been famous for her Merino wool, so now the mutton of Canterbury crossbreds won equal fame. On the whole, it has been found that the Lincoln cross gives the best return in wool, and the Leicester in mutton. The Merino was gradually pushed back to the higher mountainous districts, which, however, remained the breeding places for the ewes required for crossing with long woolled rams or the downs in low lying areas. Different crosses are used in different districts owing to differences in climate and drainage; in the drier areas the cross with the Leicester, especially the Border Leicester is found most suitable, in the wetter districts the Romney Marsh, on heavy rich land the Lincoln, and on high cold country the Cheviot. From the point of view of both wool and mutton the halfbred has proved most profitable. For while the pure bred English sheep has the advantage of quantity to the extent of perhaps 3lbs. extra in weight of clip, and 4 to 5lbs. in the weight of the carcase, the halfbred has the advantage of quality, bringing 3d. per pound more for its wool and ½d. per pound more for its mutton. At that time, about 1915, there was the added advantage of a ready sale in the colony for all halfbred

sheep. Growers often obtained more at their door for their wool than it brought in the London market.

Gradually it was recognized that Canterbury with its relatively abundant and reliable spring rainfall and consequent abundance of spring fodder, was better suited to produce meat from sheep than its rivals in the Southern Hemisphere, namely Australia and South Africa. To take advantage of this farmers began to concentrate on producing fat lambs and this affected breeding and management.

As well as good balance of form, and good fattening properties, rapid maturity was now needed, and that need was successfully met by the cross between Southdown rams and Crossbred flock ewes.

Breeds.

Till 1870-80 the story of the Merino is largely the story of Canterbury. As early as 1843 the Deans had imported Merinos from Australia, and although thousands of Merinos were imported from Australia by the squatters, it was not till 1853 that a stud flock was formed, as quantity not quality was their main concern when stocking a new country. In that year John Hall of the Terrace station, started his stud flock from 12 ewes and 2 rams of pure German Merino Negretti or the long wool type, acquired from Mr Stoddart who had imported them from Sydney. Later, imported Rambouillet rams were purchased from Mr Walker of View Hill. In 1860 George Rhodes paid a visit to Europe and purchased two sheep in London at £12/10/- each, one ram and one ewe in France, and five rams and ewes from the King of Wurtemberg's flock. Of these only twelve arrived safely in New Zealand. Another importer and breeder of Merinos was George Rutherford of Leslie Hills who in 1866 bought from Mr Murray of Mt. Crawford, South Australia, fifty-one rams and fifty ewes. At regular intervals selected stud rams have been imported from Mr Murray for use in this stud flock, and in 1901 "Fame" was purchased for 500 guineas.

Gradually other breeds were introduced, at first they were rare, but later they came more into their own. The first of the English Leicester breed, which has long been the most popular long wool breed in New Zealand, was a

ram brought to Nelson by Mr Saunders. Canterbury's first breeder was Mr Threlkeld of Flaxton who founded his stud flock by purchasing three ewes in lamb, one ram from Cumberland, England, and five ewes selected from Auckland.

Once the Merino had to give up its dominant position the choice of breeds became largely a matter of individual opinion as to what best suited the district. It is interesting to note that Leicesters were introduced into the Mt. Grey estate about 1870 and were for a time very popular, but in 1900 the Shropshires were rapidly replacing them.

The first Border Leicesters were imported into Otago from Scotland by the New Zealand and Australian Land Co. in 1859, and most of Canterbury's flocks sprang from these sheep. However, there were some early breeders such as Mr E. J. Lee of Southbridge who purchased a small flock of Border Leicester ewes from Mr Graham of Auckland in 1865 and Mr William Boag of Burnside who, in the same year, imported 25 ewes from Australia.

The Lincoln breed played a prominent part in the evolution of the Corriedale. Although Mr Grigg of Longbeach had some Lincoln sheep before Mr Threlkeld, it is the latter who first started a stud flock. In 1865 Mr Threlkeld imported a ram from Cumberland and purchased ten ewes from Mr Grigg.

Canterbury claims the first shipment of Shropshires to New Zealand. Mr C. Williams of Prebbleton brought out four in 1867. Mr Grigg founded his stud in 1872. These sheep were quite popular about 1900 for crossing with crossbred, halfbred and Merino ewes, but later they declined in popularity as the demand for light weight lambs favoured the Southdown breed.

There is no record of the Southdown in Canterbury till the early 'sixties when Henry Matson imported some from Australia. These sheep were from the flock of Jonas Webb in England and were, in 1863, acquired by the Deans' trustees. Fresh blood was introduced in 1868 when two ewes and two rams were imported from England and in 1881 when five ewes were imported from the flock of His Royal Highness, the Prince of Wales at Sandringham. Another noted Southdown breeder in Canterbury was Mr Samuel Garforth of Spreydon who started his flock in 1870. But this breed made little progress till the establish-

ment of the frozen meat trade, especially in fat lambs, brought the Southdown into prominence. It is interesting to note that the number of registered flocks in Canterbury rose from two in 1894 to over a hundred in 1926.

The first record of Romney Marsh sheep in Canterbury is in 1865 when Mr Frederick Weld introduced them into the Mt. Grey district. However, the first registered breeders were the Bealey brothers, who imported some in 1867. Not till eleven years later did the New Zealand and Australian Land Co. form their flock.

To Canterbury came New Zealand's first importations of other breeds as follows:—Cotswold 1863, Dartmoor 1864, Norfolk Down 1868, Wensleydale 1894, Kent 1897, Dorset Horn 1897, Ryeland 1901, Scotch Blackface 1908, and Suffolk Down 1913.

Cross breeding had been attempted in Australia in the 1840's, but it had proved unsuccessful, largely because little care had been taken to provide pure sires for future use or to separate several grades of females. In Canterbury Merino ewes had been crossed with Leicester rams on the Levels in 1868, the wool in London fetching 10d. a pound, while Merino fetched 9d., and in July, 1871, Messrs G. G. Russell & Co. were notified by their London broker that there was a "demand for halfbred wools at enhanced prices," a demand that was likely to continue. These wools fetched on an average 2d. to 4d. per pound above the Merino and when the weight of the wool and the carcase were considered as well, it was evident that they would prove a more paying proposition than Merinos. The late 'sixties and the 'seventies saw a great increase in the use of long woolled English and Border Leicester and Lincoln rams to cross with Merino ewes. Gradually this practice spread across the plains to the hill country, long woolled rams were first used at the Terrace station in 1874 and in the same year Tripp of Orari Gorge bought a Border Leicester ram, as it was smaller, hardier and more suited to the hills than the English Leicester or Lincoln. One of the first to run halfbred sheep on the high country was Alfred Peache who bought Mt. Somers in 1876.

As early as 1874 a Christchurch stock agent announced in the Press that so "extensively had cross breeding been

carried on in the last two years that at our sale yards they now outnumber the Merinos."

Finally, the construction of water-races enabled the land to be subdivided, and made possible the introduction on a large scale of halfbreds which needed more water and more luxuriant pasture than their Merino brothers.

The Corriedale is New Zealand's contribution to the sheep owners of the world, and it is fitting that Canterbury should have the honour of being the place where the foundation of the present Corriedale breed was laid. "The evolution of the Corriedale breed of sheep to a stage where it is recognized as the finest combination wool and mutton breed" is a living commemoration of the small band of New Zealand stud masters who, in the face of discouragement, resolutely persevered in their attempts to produce a "breed of sheep by cross breeding long wool sheep and Merinos and by fixing the type by inbreeding the progeny."

The first man in New Zealand to cross a long woolled ram with a Merino ewe, and then inbreed the halfbreds to secure a new breed of sheep was Mr James Little. In the early 'sixties James Little came out from Scotland in charge of a consignment of Romney Marsh sheep, 22 ewes and 9 rams, which went to the order of Mr Aitken and Dr Webster who had two properties in North Otago, one of which was called Corriedale. When his neighbouring squatters ridiculed the idea, stating that native tussocks would not carry pure Romney Marsh, Mr Little asked if he might be allowed to start a halfbred flock. But it was not until Mr Little had success with his Romney flock, winning a great many prizes and selling rams at big prices, especially in Canterbury, that Dr Webster gained confidence and about 1866-8 gave him 600 halfbred ewes to experiment with. "When we docked the lambs I kept what I thought were the best ram lambs to put to the 600 ewes. The ewes had a distinguishing mark and we put them to graze all the winter with the other halfbred ewes. Before lambing, however, they were drafted off so as to lamb by themselves, and at docking time the progeny were earmarked and branded and were grazed with the other halfbreds away from the Merinos' eyes till shearing time. They were shorn separately, the wool was weighed and compared by the wool classers with the wool from the halfbreds and

inbred hoggets. It was found that the wool had a slight advantage in both weight and quality, and the sheep had a most decided advantage in conformation. It was found also that they had fewer of the bad points of Merino as mutton sheep.—As time went on Dr Webster, being completely satisfied, allowed me to put inbred rams to the whole of the 'Corriedale' halfbred sheep. On the demise of Dr Webster, however, all his stud flock was dispersed."

Mr Little then took up land on his own account at Allandale, North Canterbury, and as he says "I went in for the breeding of Corriedales neck and crop, and put all my eggs in one basket." In 1878 or 1879 he started building up a flock by buying the biggest framed and sturdiest looking Merino ewes he could get. He bought Lincoln rams at the winding-up sale of Dr. Webster's stud sheep and also some from Mr George Sutton, Southland. From 100 of the best ram lambs the progeny of these ewes, a heavy cull was made and 20 of the best were retained for service. These were mated with the pick of the halfbred ewes, the progeny of the Merino ewes and Sutton and Webster rams. By heavy culling and careful management Mr Little tried to achieve his ideal—the solid well-shaped carcase of a Southdown or Shropshire well covered with a good staple of the best quality halfbred wool. He also recognized that for the breed to be worthwhile it must be able to fight for itself and not need coddling, and with the development of the frozen meat industry there was also early maturity to be considered.

Before Mr Little's breeding operations in North Canterbury towards the end of the 'seventies, the New Zealand and Australia Land Co. had commenced breeding Corriedales at the Levels estate, near Timaru. As this flock has been maintained continuously since then, it is the oldest Corriedale flock extant today. In 1879 Mr S. D. Greenwood's flock was started and at intervals after this various other flocks were commenced by the breeding of long wool rams of some breed and Merino ewes.

Teviotdale in North Canterbury is notable for having another of the oldest Corriedale stud flocks—Leicester Merino.

A revolution in sheep management and methods occurred with the opening up of the frozen meat trade. Till

about 1870 farming and grazing were utterly distinct pursuits followed by two distinct classes of settlers. Farming, or rather corn and potato growing mainly for the local market, was undertaken by men of small capital on a small property of 100-300 acres, a few acres of which would be cleared every year. Grazing of sheep for the export of wool was undertaken by men of large capital on large runs of thousands of acres. Prior to the 'seventies any cultivation done by the sheep owners was mainly a few acres of oats for their horses. From 1870 to 1890 was the age of the transition. When no more sheep could be carried on the native tussock, sheep owners began to increase their carrying capacity of the land by sowing English grasses and growing turnips for winter feed. The first grower of turnips was regarded as a "harmless lunatic." His friends told him Merinos would not eat turnips, but as it happened the Merino took very kindly to them.

The rapid increase in New Zealand's population resulting from the gold rushes of the mid 'sixties, Vogel's immigration and public works policy, and the development of an export trade to Australia stimulated the demand for cash crops. The acreage under wheat in Canterbury rose from 4,238 in 1858, to 40,038 in 1868, and to 237,551 in 1888.

Wheat became the mainstay not only of the small farm, but also of many large estates previously devoted to sheep grazing. At Waimate in the 'seventies, 'eighties and 'nineties, there were usually 4,000-5,000 acres in grain and over 1,000 in turnips or grass.

In those days of extensive bonanza wheat-growing, farming methods were very crude, consisting of burning, clearing, ploughing, harrowing, sowing, reaping, threshing and then running the produce on board ship. The essential characteristics were "large acreages, enormous grain paddocks, contract labour prices and cropping rather than farming, and it resulted in a ruining of soil fertility and early rapid decline in yields, and in damage to the soil that is at the root of many of our present day problems."[13]

Fortunately the frozen meat trade inaugurated a better system of farming. Extensive sheep grazing and extensive cropping were superseded by intensive sheep farming and intensive cultivation of varied crops. The smaller farmer who had hitherto found it more profitable to grow grain

crops than to keep sheep for their wool, began to grow crops to fatten sheep for freezing. Later, the demand for the rapid fattening of lambs for export caused the lowland farmer to adopt a highly organized system of mixed farming and crop rotation. The plough became the best friend of the sheep; in autumn there was cultivation for spring feed, in spring cultivation for summer feed, and in summer cultivation for winter feed. Oats, new grass, clover, rape, oaten chaff and hay were all used as feed crops.

In 1878 the question of developing the most suitable system of crop rotation occupied the attention of some farmers, but not till the introduction of the frozen meat trade was crop rotation widely practised. The following rotation was considered the one best adapted to the Courtenay district. "A 300 acre farm which has been divided into six parts will crop in number 1 turnips, 2 wheat, 3 oats, 4 rape, 5 and 6 grass; in the second year 6 turnips, 1 wheat, 2 oats, 3 rape and grass seed, 4 grass seed, 5 will remain in grass. This will give 100 acres each of corn grass and green crops or four crops in three years. The turnips and rape occupy the ground but half a year, and the grass will remain down three years. The wheat and oats would be manured by the fed-off turnips, the grass in like manner after rape, and the turnips after rape. I have always found that a fair crop of turnips fed off by sheep has left the land rich enough to produce a crop of wheat and one of oats. When the oats have been removed the land should be immediately turned over and sown down with rape, grass seed and clover."

An old Flemish saying "No green crops no cattle, no cattle no manure, and no manure no corn," emphasizes the importance of combining sheep and tillage. In Canterbury this was largely achieved by feeding off turnips which became "the keystone of our agricultural system." Another source of nitrogen was clover which provided nutritious food for the soil as well as the flock. Moreover, it was worthwhile to enrich the soil by the use of artificial manures, such as superphosphate, since "by feeding the land we feed the flock, and the flock, unlike a crop of wheat, gives back as well as takes." Thus the amalgamation of pastoral and agricultural pursuits has been of untold benefit to the country; while "corn growing without stock

means the ultimate exhaustion of the soil, and sheep without tillage implies a scant production and the employment of a small amount of labour," the combination means enrichment of the soil, increased production and a large amount of labour. These developments can be traced in figures obtained at various times concerning the production of Longbeach, famed as the best farm in the world. In the 'seventies they sheared 30,000 sheep, had 3,000 pigs, 1,000 or more head of cattle and worked 150 draught horses; in one year Grigg had 5,000 acres in wheat and 3,000 in oats. In 1879, 3,000 acres were under grain, 1,400 acres under mangels, turnips, besides potatoes and rape, 300 acres of field peas, and some 300 acres were mown for hay. Including the fallow lands about a quarter of the present estate (19,560 acres) was under a rotation. There was a good flock of 1,800 Lincoln ewes and a flock of 10,000 Merinos and halfbreds. In 1893 Longbeach (15,000 acres) had 1,100 acres in turnips—Purple Top, Mammoth and Aberdeen Yellow—a manuring was given of 2cwt. to the acre of bone meal and superphosphate mixed in the proportion of one to two respectively—and they had 1,100 acres in rape, 4,600 acres in wheat and 2,100 acres in oats. Usually 30,000-35,000 sheep were kept, mainly Shropshire Downs, Leicesters and Border Leicesters. Mr Grigg used to sell every year from his own permanent flock about 12,000 fat lambs and wethers and he bought more than 20,000 wethers and fattened them as well for the London market. He likewise bought 400 cattle for fattening.

CHAPTER IX.

The People and the Land

The Struggle between Squatter and Cockatoo—the breaking up of large estates.

ALTHOUGH the price of land in the Canterbury Settlement was higher than elsewhere in New Zealand, the regulation was popular both among the squatters, who saw in it an assurance that their runs would not be bought over their heads, as the price was too high to tempt speculators, and among the workmen who saw that they had little hope of acquiring land when the lowness of the price made the purchase of large tracts of land a profitable investment for capitalists who could afford to wait for a return from their money. Thus the land was conserved for the bona fide occupier until he had learnt experience and managed to save sufficient money to buy the freehold of a small farm. On the other hand, Sir George Grey's cheap land policy enabled large blocks of land to be bought in the vicinity of Orari, Temuka, Timaru and other places outside the Canterbury block. In the Amuri district, at that time in the Nelson Province, Mr William Robinson, an Australian, bought 84,000 acres of the magnificent Cheviot Hills estate for £21,000, equal to 5/- an acre; as this was such a large amount for anyone in New Zealand to pay in cash, he was thereafter known as Ready-money Robinson.

Gradually the small farmer began to buy land, at first round Christchurch and then near Kaiapoi and Rangiora; these areas of freehold spread and joined each other, but as yet the swamps remained undrained and uncultivated. In the early 'sixties land was freeholded at Yaldhurst, Rolleston, Courtenay, Springfield, Russell's Flat, Lincoln, Brookside, Broadfields as well as other places, and in 1865 land as far southwest as Greendale. Step by step the small farmer advanced across the plains, picking out the rich lands and leaving the rest to the squatter. As more lands were selected and brought into cultivation, the clash of interests between agriculturalist and pastoralist,

cockatoo and squatter, the one desiring small areas for husbandry, the other resenting intrusion on his wide areas and the limiting of his frontal areas, became more violent.

In his struggle with the cockatoo invader, the squatter's chief weapon was his pre-emptive right. When anyone applied for or "challenged for" land over which a holder had a pre-emptive right (P.R.), he had to deposit 10 per cent. of the purchase money with the Treasurer of the Waste Lands Board and pay the remainder one week after the application was granted, but if it was not granted the deposit was returned. If the holder of the P.R. in the month allowed him decided to purchase any portion of the land applied for, he had to pay a deposit of 10 per cent. of the purchase money of such a portion and pay the remainder within six weeks. These pre-emptive rights over land on which a homestead had been built or improvements made, had been instituted to give the squatter greater security and to encourage him to make improvements, but as the old order changed they became an obstacle to the progress of settlement. For whereas the challenger had to challenge and pay a deposit for the whole block, the holder could stave off the challenge by merely buying twenty acres. As a result people became discouraged and rarely applied for land over which any P.R. existed. In fact a P.R. was considered almost a freehold, and the "challenging of a P.R. was regarded as an 'unfriendly if not ungentlemanly act'."[11] The first clash in the struggle between the squatter and cockatoo, arose from these pre-emptive rights. In 1858 there was an attempt to amend the regulations so that a runholder when challenged would have to purchase the whole of his right, but the power of the squatters in the Provincial Council caused its defeat. This incident is described in the following satirical parody of Hiawatha.

SONG OF THE SQUATTERS
or
Amended Regulations.

Of our ancient legislators,
Of our statesmen in old time,
Of the Councillors and wise men
In the very ancient ages,
Shall I tell you how the stockmen,
Crafty squatters, subtle shepherds,

From the southward and the northward,
From the deep and wide Waitangi,
From the changing Hurunui,
From the gloomy Harewood Forest,
From the icy Lake of Coleridge,
From the County of Mackenzie,
From the regions of the westward,
Came together down to Christchurch,
Entered the Provincial Council,
Made orations in the Council,
Hoaxed the simple minded Council.
Then the shepherds in a chorus,
Squatters and the friends of squatters,
Begged, implored and prayed the Council,
To consider all their hardships,
How their rents were so oppressive,
How their wool was sold for nothing,
For they could not sell their wethers,
For the paltry price of mutton,
How the market rate of stations,
Showed it was a losing business,
And they begged and prayed the Council,
To maintain the old conditions,
That had tied the land so closely,
Only on behalf of squatters,
Sweeping quite away the others.

And they kicked the farmer backwards,
From the fertile spots of country,
In the region of the westward,
Never thinking of hereafter.

—*Crosbie Ward.*

By the year 1866, when the Provincial Council set up a committee to enquire into pre-emptive rights, as all the land available for pastoral purposes was occupied no more land could be granted under the Homestead Pre-emptive Rights, but the number of Improvement Pre-emptive Rights could increase indefinitely especially since the widespread use of wire fencing. These I.P.R.s were subject to many abuses. As there was no system of inspection the word of the applicant was accepted; frequently improvements were not up to the required value of £50; they were not required to be essential for the working of the run; and sometimes the said improvements did not even exist. Moreover, the holder of a P.R. was allowed to cultivate areas and if he sold his crops he had an unfair advantage over freeholders and leaseholders, since he had to pay no cash, no rent and no taxes on his P.R.

In the following table which shows the areas granted for I.P.R.s in Canterbury, the rapidity with which fences were constructed and protected by P.R.'s is especially noticeable.

Year	Fencing acres	Building acres	Yards, Dips, etc., acres	Total acres
1858 ..		250	50	300
1859 ..	50	1,050	150	1,250
1860 ..	550	800	400	1,750
1861 ..	4,150	1,500	450	6,100
1862 ..	4,786	2,400	1,050	8,236
1863 ..	8,900	1,300	750	10,950
1864 ..	16,686	1,341	200	18,227
1865 ..	33,780	2,358	1,600	37,738
Total	68,902	10,999	4,650	84,551

During the years 1856-66 in the whole of Canterbury the area purchased by holders of P.R.s was 3,298 acres and the area purchased by challengers was 1,302 acres. Thus it became evident that these I.P.R.s were holding up the settlement of land by freeholders. In 1867 the Provincial Council passed a Waste Lands Act which forbade any further grants of I.P.R.s, although those in existence held good till 1880 when the leases expired; all cultivation except what was absolutely necessary for the working of the run was prohibited and P.R.s had to be kept up to the value of £50 or else they would be cancelled.

As the small farmer advanced across the plains, the runholders had an anxious time trying to protect their rights, and shepherds were given strict instructions to report any strangers who appeared to be looking for land. Except on the fertile and well watered plains round Winchester and Temuka there were only a few farmers south of the Selwyn river before 1870, but in 1872 they began to move southwards. Soon Julius Vogel's policy of constructing public works with borrowed money began to have its effect. The opening of the railway line from Christchurch to Timaru in 1876 encouraged settlers and speculators to buy land. The latter would frequently buy large tracts of land along the routes of projected railways. Previously the runholder had felt sufficiently protected by

his pre-emptive rights and had bought little land, but even he feverishly bought land in case there was none left for his family and flocks. "One purchase begot another. That most infectious of all diseases, optimism, spread like wild fire through the country, and the land boom began." To preserve their estates, runholders began "gridironing" and "spotting." "Gridironing" was the practice of buying 20 acre sections fronting on a road, so spaced as to leave sections of 19 acres between them, and as these had to be auctioned the small farmer stood little chance of outbidding the runholder, who usually retained them without having to purchase them. "Spotting" was buying up key positions, fertile land, and leaving the barren, water courses, entrances to valleys, road lines, in fact picking the eyes out of the land and spoiling it for future disposal.

Those who leased blocks of hill country were in an especially precarious position because if their small areas of flat or undulating land at the foot of the hills or in the valleys were bought, it would be impossible to work the runs, as there would be no place for building homesteads, shearing sheds and drafting yards. Tripp wrote in one of his letters—"I know of a man now who is going about the country seeking out dangerous places where sheep must cross, and buying 20 acres or more; not with the intention of settling the land, but to sell it again to the runholder at an enormous profit."[7] Thus men like Lee and Jollie at Parnassus, becoming alarmed that their run might be spoilt by purchases determined to buy the best parts of their run. Lee went to Nelson and after borrowing about £10,000 bought 14,000 acres and thus secured their run although the yearly interest was a large drag on their resources.

Already in 1866; the Chief Surveyor had tried to get the Land Regulations amended; he proposed that in a district where road lines had been decided on, reservations should be made for roads. In 1873 Rolleston, the last Superintendent of Canterbury, tried to get the Provincial Council to prevent the blocking up of country lying behind gorges and up valleys; to give access to these lands he proposed that roads should be laid out, not merely on paper, but surveyed according to the land's natural features. However, when the Council merely made tenta-

tive suggestions, he decided to raise the question in the General Assembly, with the result that in 1873 the Canterbury Waste Lands Act was passed. To check spotting and gridironing, all land in future was to be sold subject to the right of laying out a road through it, and all land of less than 20 acres was to be put up for auction every three months.

In the initial stages of settlement, the squatters "had taken up land barely explored, much less surveyed and had made their homes in the wilderness and prepared the way for those who were to follow after." But those days had passed, and it was not right that a few hundred people should hold several million acres when the people were crying for land. Although most of the land on the plains and downs had been bought during the land boom of the 'seventies, it was the squatter and speculator, not the small farmer who profited. For example, in 1876 over a half a million acres were sold in Canterbury, but of this 167,000 acres had been bought by twenty-five firms and individuals. Water races had made closer settlement possible, and the inauguration of the frozen meat trade, which demanded intensive farming, made closer settlement a matter of paramount necessity.

Thus, in the twenty years after the abolition of the Provincial Councils in 1876 the General Government passed various legislative measures, which were destined to break down the monopoly of land by the few to satisfy the land hunger of the many. In 1877 Donald Reid, Minister of Lands in the Atkinson Ministry, brought forward a land bill to consolidate the various provincial systems. It also provided that the Canterbury pasturage licenses, which had been extended in 1866 for a period of fourteen years and at an increased rent of 12/6 for every 100 acres for the first seven years and 20/- for the second, should be extended from 1880 to 1890 at a rent assessed according to carrying capacity and varying from 9d to 2s. per sheep. The main interest of the bill lies in the fact that it was one of the earliest experiments to promote settlement on the land of men of limited means, by setting aside waste lands to be sold to small settlers on deferred payment. This bill was carried through by Sir George Grey's ministry, as the Atkinson ministry fell before it was passed. Rolleston,

as Minister of Lands, tried to improve the deferred payment scheme in 1879. In 1882 he went further in his effort to put small men on the land, his Land Bill of that year introduced the perpetual lease with right of renewal at the end of 30 years; the lessee was not to hold more than 640 acres, and was compelled to live on his farm for the first six years. However, the main object of the bill was defeated when the right of purchase at the end of six years was granted in 1885, for once the land was freeholded, one settler could buy up others and the Government could not restrict the amount held by one person. To this bill was added the McKenzie clause which stated that no one should hold a pastoral license over more than 20,000 sheep. This replaced the clause in the 1877 bill, which had restricted the size of runs to those capable of carrying no more than 5,000 sheep, but it did not prevent the holding of several runs. But McKenzie's clause was never strictly insisted on, since all the big leasehold properties which could have been closely settled had now been made freehold.

In 1885 another Land Act was introduced by John Ballance. It provided that hilly and mountainous land which was too rough and broken for agriculture should be offered as small grazing runs. The area of a run was limited at first to 5,000 acres, but in 1887 the area was extended to 20,000 acres on poorer land. Rents were not to be less than $2\frac{1}{2}$ per cent of the capital value. Leases were for a period of 21 years with right of renewal, and residence was compulsory unless the lessee already resided in the locality. The most notable feature of Ballance's act were the village settlements. This idea was not new, Rolleston, ten years previously, in his capacity of Superintendent of Canterbury, had planted settlements near the railway at Temuka and Belfield, and the unemployed were encouraged to take up sections and support themselves by intensive farming. To provide homes and part time employment for the unemployed and the seasonal workers was the aim of Ballance. Village allotments not exceeding one acre, and small farms not exceeding 50 acres, were laid off round centres of population as village homestead special settlements. The scheme was greeted enthusiastically, but in practice it was not very successful as neither the men nor the land were well chosen. A good farmer on bad land,

or a bad farmer on good land will stand a chance of pulling through, but a bad farmer on bad land is foredoomed to failure.

The time was now approaching when the leases of the Canterbury hill runs would be put up for auction. Men who had made homes out of the wilderness, whose families had lived on their runs for perhaps nearly fifty years, looked forward with apprehension to the day when they might be outbid for their leases and the stranger would occupy their lands. Many in the land boom of the 'seventies had bought more land than they could afford, and if they lost their runs they would be ruined. At last the fateful day came, and some who went to the auction as holders of thousands of acres returned landless. "It soon became evident that defenders were going to suffer casualties. George Dennistoun of Peel Forest was one of the first to fall. He went down fighting, for it was not till his rent was run from £150 to £550 that he gave up the contest and drove disconsolately home, telling his friends he met on the way that he was only a 'cocky' now."[7]

All previous attempts to settle the small man on the land had been more or less unsuccessful owing to the lack of good land available for subdivision. Large freehold areas of plain and down country were still used as sheep runs and employed only a few shepherds. The greedy land monopolists, absentee land owners and land companies were enemies of progress and their doom was sealed. In 1891 the Liberal-Labour Party, pledged to support the interests of the small farmer, came into power. The Minister of Lands in Ballance's and later Seddon's ministry was McKenzie, a burly Highlander who passionately defended the rights of the small farmer against the large landowner. Ballance tried to break up the large estates by a graduated income tax under which wealthier taxpayers paid a higher per centage of their incomes, and by imposing a tax on unimproved land, thereby making the holding of land in large areas unprofitable. It also provided that if owners considered the land taxed too heavily, the Government would take it over. Thus, when the trustees of the Cheviot estate considered the valuation of their land was too high, and consequently the land tax too heavy, they made fruitless attempts to get it reduced and eventually decided to

sell to the Government. Incidentally the Cheviot sale was one of the big events of the time. All people who made any pretensions to being somebody in the farming or commercial world of Christchurch or North Canterbury were there. Such a crowd were intent not only on buying things, but on enjoying themselves to the full. During the progress of the sale they consumed 200 sheep, 3 bullocks, 100 pairs of poultry and 100 dozen eggs. Needless to say, sleeping accommodation was considerably taxed, and after enjoying a hilarious concert fifty visitors went to sleep in one compartment. Imagine their reactions when a bright spark introduced three or four lusty roosters into their peaceful dormitory.

After a special act had been passed the Government bought the 85,361 acres. It was subdivided and offered for selection in blocks ranging from 50-500 acres, village sections of 5-50 acres, and grazing runs over the rougher areas. It let very readily and within a year of selection 126 holdings were occupied and there were 58,720 sheep and 358 cattle on the land. The population, which in 1891 was about 83, had risen to 650 and ten years later to 1,000.

Although the act of 1892 had empowered the Government to buy up land for settlement, very few owners had offered to sell suitable land at reasonable prices. Two years later McKenzie dealt the death blow to owners of large estates; the Government was given power to compel unwilling owners to sell. In actual practice this power was seldom used as it was sufficient for landowners to know it was there, and most preferred to sell voluntarily. McKenzie refused to allow any more Crown lands to be sold and introduced two new tenures, occupation with right of purchase and lease in perpetuity which replaced the old deferred payment systems and perpetual lease. Under the occupation with right of purchase tenure a selector might hold land up to 2,000 acres including 640 acres of first class land at a rent of 5 per cent. of cash price, and after fulfilling the residence and improvement clauses might, at the end of 10 years, acquire the freehold. This system met with little favour in Canterbury, though extremely popular elsewhere. On the other hand, the Lease in Perpetuity with its greater security of tenure, and comparatively small amount of restriction, was universally popular. The lease ran for

999 years without periodic revaluation. The area which a lessee might hold was limited to 640 acres of first class land and 2,000 acres of second class land. The rent was 4 per cent. of the capital value of the land, and by an act of 1900 a rebate of 10 per cent. was allowed on rent paid one month before it was due. Small farmers were assisted to form Special Settlement Associations where twelve or more people might apply for a block of 1,000-11,000 acres, although no person could hold more than 320 acres or 500 acres of swamp land.

In Reid's deferred-payment settlements, and in Rolleston's and Ballance's village settlements, "the efficient, industrious and fortunate had prospered and then bought out" their inefficient, lazy and unlucky neighbours. McKenzie wanted to be able to say to holders of leases in perpetuity, "You can have the land for all time for your families and grandchildren after you, but we will not allow you to transfer it to those who have large areas already."[7] To assist settlers to buy land without being heavily burdened with the high rates of interest charged on the mortgage of land, an Advances to Settlers Act was passed in 1894. It provided for the borrowing of large sums of money on the credit of the Government and relending at low rates of interest to small farmers.

There were no important changes in the land laws till 1907 when the lease in perpetuity was replaced by the renewable lease; the term of lease was 33 years for settlement lands and 66 years for Crown lands, the rental was 4 per cent. of the capital value, the lease could be renewed after the land had been revalued. The 1907 Amending Act granted holders of leases in perpetuity of Crown land, the right to acquire the freehold at the present capital value, but only four lessees in Canterbury took advantage of this, until later legislation allowed purchase at the original capital value. It had been an accepted right that holders of pastoral licenses should be compensated for improvements they had effected when they relinquished the licenses. Previous to 1910 these improvements had to be paid by the incoming tenant, but in that year the Government undertook to pay the full amount to outgoing tenants, while incoming tenants would repay the Government by instalments of principal and interest extending

over 21 years. Many people urged that insecurity of tenure caused licensees of runs to make no improvements, other than what was absolutely necessary, and induced them to take all they could out of the land, leaving it at the end of their term in an impoverished and almost ruined condition. To remedy this, an amendment was passed which entitled a licensee to a further lease when the current term expired, or to one of the subdivisions if the run was subdivided.

Subdivision of the plains had proceeded apace and at length it was the turn of the hill country. However, subdivision of such country is no simple matter; summer country is useless without winter country, high hilly country is difficult to work without a certain amount of flat land, and before a fence can be erected a fence line must be found. Where land will carry only one sheep to every four or five acres, where the annual death rate may be 10 or 12 per cent., and where there is always the risk of snow, an extensive area is required in order to make a decent living. Many sheep farmers today suffer from the effects of unwise subdivision, sometimes this can be counteracted by working two runs together, but elsewhere the only possible remedy is a revision of the boundaries. The Tripp brothers offered the Government about 27,000 acres of freehold and leasehold at Orari, and it was subdivided into five pastoral runs and nineteen small farms. Unfortunately the work was badly done. "No suitable homestead sites were provided for the runholders, and many of the farms were so poor that no one could by any conceivable process of agriculture make them pay. Good use could easily have been made of much of this land by letting it together with hill country. Had this been done, it would have saved some unfortunate farmers from slaving for years to accomplish the impossible and would have made it unnecessary for some of the runholders either to live far away from their runs or to build their houses in the sort of place an eagle would choose for its nest."[7] Seeing in the Mackenzie country a suitable field for subdivision, the Government appointed two commissions to go into the matter. These commissions differed considerably in their decision, but in the end the 18 runs of 835,100 acres, of which 242,000 consisted of barren worthless country covered with perpetual

snow, and the rest of rolling downs, stony plains, mountain ranges, and torrent valleys running into the heart of the Alpine chain, were divided into 27 pastoral runs and five small grazing runs, more or less situated along the main roads.

In all this land legislation from 1877 to 1914 we see the valiant attempts to break up the large estates, provide land for the small man and to assist him to make use of the land thus made available. The prosperity of the small farms that now cover most of the plains, and the greatly increased numbers that share in the wealth of the soil are a living testimony to the success of those attempts.

CHAPTER X.

Educating for the Land

WHEN the settlers, recently arrived from the "green and pleasant land" of England, first beheld the brown, treeless plains of Canterbury, they must have felt like strangers in a strange land. This strangeness would be deepened as they became aware, that here, not only was the land different, but even the sun, wind, rain and sheep. From this strangeness grew the realization that the task of breaking in the new land demanded something more than a knowledge of Latin and Greek.

Young men, fresh from an English public school or university, who had decided to try their luck in the Antipodes, were faced with the problem of gaining experience of colonial conditions. Some, like Acland, considered spending time on an English farm, but dismissed the idea since conditions were so utterly different. To gain this necessary experience there grew up the system of cadetship, or apprenticeship to a flockmaster who in return for a sum of money, usually £50-£100, undertook to teach all aspects of farming. In a letter to his father dated December 28, 1855, Acland describes his work while a cadet with Henry Tancred at Malvern Hills. "We are in the middle of shearing in which I take part not only in packing up fleeces, as is usual with most station masters, but I am also learning to shear myself. I hope to manage twenty a day. It is, however, hard, hot, work, but every man here ought to be able to do it, if only to know if others are doing right when he has men working under him, and for the more important reason, that if unable to procure shearers, a sheep farmer may not be entirely left in the lurch, but be able to do a good day's work with the assistance of the shepherd."

When Tripp and Acland had served as cadets and took up their own runs, they themselves took on cadets who paid "£30 per year for the privilege of driving bullocks, digging the garden, cutting posts and rails and such like."

Cadets were a fairly general feature of the stations, and indeed when labour was scarce they were extremely useful. It is interesting to note that many cadets later returned to their old stations not as cadets, but as managers or owners.

The colonists' sons presented another problem. Although destined for the land, were they to spend their days only with the Classics and acquire their agricultural knowledge from Virgil? Anxious fathers were delighted, therefore, to learn in 1851 that the Upper Department of Christ's College, in accordance with promises made in the Canterbury Papers, was going to provide special training for colonial life and show how the processes of agriculture should be adapted to the climate and soil. It is not our place to enquire too closely as to how much agricultural knowledge the unwilling schoolboy acquired, but whether much or little, it provided a useful beginning.

Once they had left school what was to be their next step? A farm labourer or cadet? Certainly cadetships gave many newcomers valuable training, but much depended on the type of owner or manager. Some regarded cadets as a useful source of income, or as a cheap labour supply, while others took their responsibilities seriously and went out of their way to show them the best methods of running a sheep station. Gradually the men came to realize that a School of Agriculture would provide not only training of a more reliable standard, but also opportunities for research into colonial problems.

In accordance with its policy of endowing education by reservations of land, the Provincial Council in 1872 set aside 100,950 acres for a School of Agriculture. The first benefits to be derived from this endowment came from a series of weekly lectures on Agricultural Chemistry given in Christchurch and a few other centres by the Canterbury College Professor of Chemistry whose salary came from that fund. A committee, appointed in 1876 to investigate agricultural education, stated that an institution should be set up at which "a thoroughly practical education in colonial farming might be obtained at a moderate cost."

Thus it was decided to purchase within 15 miles of Christchurch a farm of 150-300 acres of land varying from heavy swamp to light shingly soil. Finally 323 acres were bought at Lincoln for £7,053, and by 1879 this was

increased to 502 acres. Since that time more land has been purchased to meet the expanding needs and interests of the college. To make the farm work more efficiently, many alterations were made, old fences uprooted, new ones erected, hollows filled and drains dug.

Once having secured the land, the next problem was the erection of suitable buildings. It was unfortunate that the elaborate brick buildings containing separate quarters for the manager and his family, a dining hall and separate bedrooms for twenty students, a lecture room to house seventy, a library and museum, all costing £34,000 were so expensive that little money was left for farm buildings. Thus the stables, granary, milking sheds, dairy, piggeries and implement sheds were only temporary structures of wood and iron.

The next step was the appointment of a Director, and in 1878 Mr W. E. Ivey, Scientific Superintendent of the Experimental Farm Reserves in Victoria, accepted the position. Lincoln College has every reason to be grateful for the appointment of this man who was to guide its destinies through the early difficult years.

In his opening address in 1880 the Director outlined the objects of a School of Agriculture. "Many suppose the school to consist of a squad of cadets, others fear that the system of farming carried out will be too much coddled, as it were, the students will have become so used to having to their hand the best of implements, conveniences and of buildings that they will not be able to make a small capital go as far as it might, and that having a decent bed to sleep in, and meals at regular intervals, will unfit them for occupying the sod whare of the cockatoo." Since it was difficult to find a good farmer who was willing to take charge of the young boy of sixteen who has just left school and do his duty by him, Mr Ivey put forward a plea for utilizing the transition years from boyhood to manhood by a combination of practical agriculture and scientific knowledge. While expounding the value of science, he did not underrate the value of experience "which alone could teach farmers how to buy and sell wisely and how to deal with labour and men." He felt strongly that "the agriculture of this country is in a transitional stage, an army of 'strippers' is gradually spreading over the country farther

and farther from the centres of population and shipping ports and leaving behind them land which will want in the future farming not 'cropping' if the colony is to carry its existing agricultural population and continue its grain export at its present rate. So long as land will on mere ploughing and sowing give grain in paying quantities, any man with an amount of money sufficient to pay his way for a few months, can strip the grain which a virgin soil and a fine climate combine to produce for him. He need not have more than the crudest idea, if any, as to why crops grow and how they feed. But the man who succeeds the stripper in occupation of the land must be a man of knowledge, observation and experience. It is men of this class who form the backbone of a successful agricultural community and it is to producing men of this class that our efforts should be directed."

In accordance with his aim "of making experienced and scientific farmers out of ex-schoolboys" he arranged that the course of his first eight students should include Agriculture, Chemistry, Biology, Geology, Veterinary and Medical Surgery, Mathematics, Book-keeping and Surveying. Moreover since he was strongly of the opinion that students should go through the drudgery of farm work, he objected to hiring labour for the unpleasant tasks. Thus all boys had to do so many hours' farm work per week; at first they were paid for it, but this was discontinued in 1901.

The length of the course fluctuated from two to three years and successful students received a final certificate till 1885 when Diplomas in Agriculture were awarded. Finally in 1896 the University of New Zealand instituted a Bachelor of Science in Agriculture. Although Lincoln was the first college in the southern hemisphere giving a course leading to a degree in Agriculture, no student took advantage of this till 1913. It is interesting to note that the first student to enrol and one of the first students to complete the course in 1882 was H. A. Knight of Racecourse Hill. He was Chairman of the Board of Governors in 1915 and his gift of £1,000 to the building fund for the 1914-18 War Memorial Hall, was but one evidence of his gratitude to, and enthusiasm for, the College.

After a promising beginning the number of students

began to decline towards the end of the eighties, partly due to the depression, and partly due to the increase of fees from £46/10/- to £60. Dissatisfaction with the existing state of affairs was apparent as early as 1884 when the examiners complained of the neglected state of the ditches, drains, gates and fences. The Director replied that the boys had no time and there was insufficient money to hire outside labour. On that occasion he also regretted that insufficient time was available for experimental work which would increase the usefulness of the College to the farmers and its popularity among them. As a result of agitation, a Commission was finally appointed in 1888 to investigate the whole working of the College.

The root of the evil as pointed out in their report, lay in the Board of Management. How could the Canterbury College Board for the most part, blissfully ignorant of agriculture, be expected to have the necessary knowledge to administer an Agricultural College? This defect was overcome when in 1896 Lincoln at last became autonomous and the Board of Governors was composed of one representative chosen by the Governor in Council, three by the Canterbury members of the House of Representatives and Legislative Council and three by the Canterbury A. & P. Association.

Another major evil was the lack of funds which resulted, partly from too lavish an expenditure on buildings, and partly from a misuse of endowment funds in the interests of Canterbury College. This lack of finance had caused the fees to be raised to an almost prohibitive level, thereby greatly restricting the usefulness of the College. Hampered by an ignorant Board of Managers and lack of funds, the Director had been unable to overcome the prejudice of the practical farmer against scientific agriculture. Moreover, this prejudice had been further increased when they saw that the College farm was by no means paying its way. The remedy suggested, was the appointment of a Farm Manager, who would control all aspects of the farm and leave the Director free to organize the educational and experimental work.

When commenting on a statement in this Report to the effect that "The quality of stock on the College farm is good, but there is a noted absence of typical breeds of

sheep and cattle considered necessary for instructing students," the Editor of the Country Journal pointed out some of the difficulties in running a farm of this type. "Typical breeds to be of value for educational purposes must be of the best quality, and to maintain the high standard there must be considerable culling, and purchase of best strains of blood. The breeding of pedigree stock is not invariably profitable—far from it—and it is required that the farm should pay its way. The presumption is that the farm is meant for the proper instruction of students, and to this end there can be no objection to some sacrifice of profit, if the funds of the institution will stand it." In this connection it is interesting to note the origin of some of the College flocks. The Border Leicester, the oldest college stud, was started in 1874 by the purchase from T. O. Hay, Pigeon Bay, of 54 ewes which were descended from the New Zealand and Australian Land Co.'s flock. Their most successful stud flock of English Leicesters was started in 1894 by the purchase of 30 ewes from the flock of P. C. Threlkeld. J. Grigg of Longbeach in the same year, sold 23 Shropshire ewes to the College. The Southdown flock was founded in 1900 by the purchase of 12 ewes from H. Pannett, Springston. Another increase in the number of their different breeds was made in 1912 by the purchase of 20 Romney Marsh ewes, 15 ewe hoggets, one lamb and one ram at J. B. Reid's sale. Then in 1920 Mr Ensor presented to the college, 10 ewes and 10 lambs to form the foundation of their Corriedale flock. In the same year G. Gould presented 18 Shropshire ewes, but as these rams are in very small demand there has been little extension of the flock. Thus we see that the students were given the opportunity of comparing the relative merits of a large number of different breeds.

Although Lincoln College found difficulty in carrying out its dual role of School of Agriculture and experimental farm, it is a lasting tribute to the work of Ivey that even in those early years much valuable research was carried out. To counteract the effect of "stripping" or continuous cropping, he advocated better cultivation, rotation of crops, mixed farming and manuring. Not only by his teaching but also by his demonstration of the college farm,

did he show the practicability of the new methods. To him belongs the honour of pioneering the way for the use of fertilizers, especially superphosphate, in New Zealand. Under his supervision, plots of wheat were top-dressed with nitrate of soda, superphosphate of lime and kainit with 125 and 250lbs. to the acre, and the differences were noted. Gray, the Lecturer in Chemistry, analysed many samples of commercial manures and demonstrated the necessity for safeguarding the farmers against the many worthless ones on the market. Using Gray's analytical results as the basis of his arguments, Ivey wrote strongly worded articles to the Press, protesting against the adulteration of manures. His work led finally to the passing of the Fertilizers' Act.

To farmers who were laying down pastures or growing fodder crops or planting shelter belts the valuable experience of Lincoln was made available. Ivey demonstrated the need for certification of seeds when he examined some seed which was bought as white clover, and which he found to be the almost worthless small yellow clover. Another matter which engaged his attention was the low germinating power of imported grasses, especially fescues and foxtail. The remedy suggested was to sow thickly a small plot and use the seed for large scale sowing. To find out which variety of turnip was most suited to Canterbury conditions they planted Lincolnshire Red, Green Globe, Mammoth Purple Top from the drier Eastern counties of England, also Devonshire, Grey Stone and Aberdeen Purple Top. As a result the Green Globe which had a good shape, fair size, grew well out of the ground and was hardy, was pronounced the best. In connection with tree planting, the Director wrote, "Our plantations afford most useful information as to the best trees for poor soil on exposed parts of the plains, as most obtainable varieties of coniferous and deciduous trees have been planted. The number of trees suited to the conditions has proved very small. Of the pines, nothing equals the Insignis, and if planted at first thickly and then thinned judiciously there is no great danger of the trees being blown over, as they not only protect one another, but through their roots forming a complete network in the soil, growing trees have a better hold."

Again, when refrigeration brought the question of sheep breeds to the fore, Lincoln conducted experiments with the crossing of sheep in an attempt to fix a breed equivalent to the first cross Merino and Long Wool. Later, in 1898 the Director, Mr Bayne, conducted important experiments on the most profitable cross-bred lamb for export purposes. This resulted in the increased popularity of Southdown rams in Canterbury.

Then when water races were constructed to the farm in 1887, it was decided to construct channels as cheaply as possible with the aid of plough and level so as to demonstrate what could be done by a farmer of small capital. Some experiments were made on the effect of watering various crops, but the Director lamented that more money was not available to enable them to compare during the same season the results of watering at different periods, in different quantities, and on different crops.

Although some experimental work had been done with wheat it was not till after the arrival of Hilgendorf at the college that it received much attention. In 1910, the Director, Professor Alexander, released Hilgendorf from some of his classes to enable him to concentrate on his work of improving New Zealand wheat. Finally the importance of his work was recognized by the establishment in 1927 of the Wheat Research Institute.

Nowadays when more time and money are available for agricultural research, and statistical methods offer better facilities for comparative studies, we are apt to discount the work of those early directors and lecturers at Lincoln who paved the way for our modern Grasslands Division, Plant Breeding Stations, Animal Research Stations and the like. Nor were they content to confine their activities merely to the laboratory or experimental plot, but all the time they were trying to serve the farming community and make known the results of their experiments by means of articles, talks, show exhibits and field days.

Business, education, and pleasure were combined in the activities of the Canterbury Agricultural and Pastoral Association, which had its office in Christchurch. This Association was founded on January 23, 1863, and was the successor of two earlier societies, the first being the

Christchurch Agricultural, Horticultural and Botanical Society, founded on July 10, 1853, under the chairmanship of Captain Simeon. This society held an exhibition of horses, cattle, sheep and pigs in Market Square on October 6, 1853. The second institution, the Canterbury Pastoral Association, held its first sheep show at Mr Benjamin Moorhouse's station at Shepherd's Bush on the Rangitata on September 14, 1859; this was a great success and was attended by a number of sheep breeders who showed their appreciation of Mr Moorhouse's hospitality by presenting his infant son with 100 ewes. The Association, imitating the Royal Agricultural Society of Scotland, held its show in different districts, probably for the convenience of run-holders who would have to ride many miles. Turton's Accommodation House in the Ashburton district, on August 15, 1860, was the scene of the second show. Mr B. Dowling, who with Mr E. Fereday was practically the founder of the Association and did most of the organizing, won 11 out of the 18 prizes at the show.

On October 22, 1862, the first Agricultural and Pastoral Show was held in a "spacious paddock, well fenced in by gorse, to the north of Latimer Square." The stock were arranged round the four sides of the paddock in such a way that visitors could examine the stock from the front and rear. Owing to the great distance to be travelled and the lack of good transport, the number and quality of sheep entered were extremely disappointing. Mr Robt. Wilkin, the president of this show, which led to the formation of the Canterbury A. & P. Association, became its first president. The Association purchased 14 acres of land, at £120 an acre, in Colombo Street South, the present site of Sydenham Park, and held its first show there on October 22, 1863. By 1887 the annual show had so increased in importance and popularity that larger grounds were purchased at Addington. The Association encourages farmers to improve their stock by arranging shows and fairs, by awarding liberal prizes and by publishing Herd and Stud books for cattle and draught horses.

Moreover its members played a prominent part in the formation of the New Zealand Sheep Breeders' Association and Mr Murphy, secretary of the Canterbury A. & P.

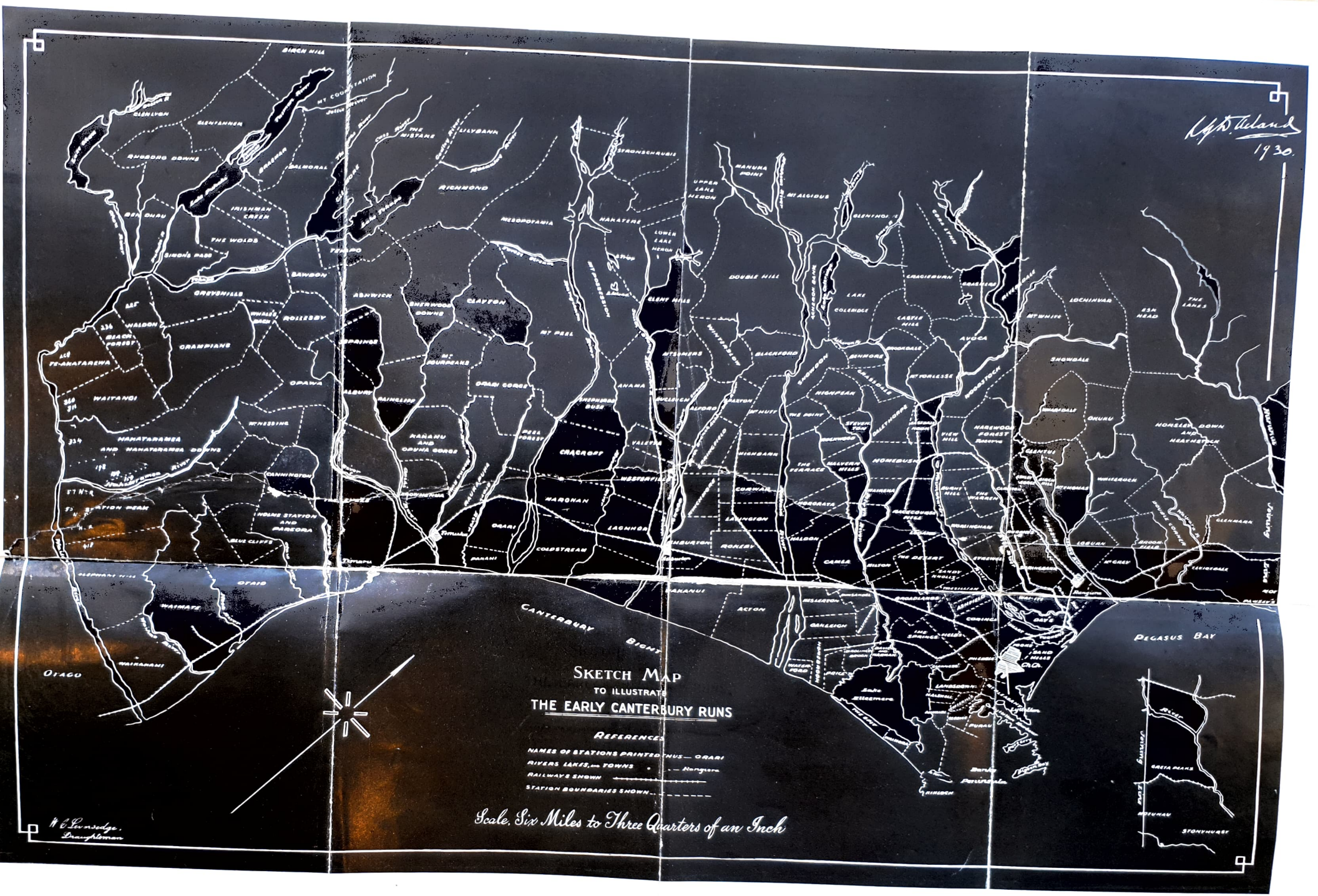
Association was appointed editor of the South Island Flock which was first published in 1897. This marked another step in the history of sheep breeding in New Zealand.

From 1877 to 1912 it published the Country Journal, later known as Canterbury A. & P. Association Journal, for the purpose of disseminating agricultural information among the farming community. Although the Journal was discontinued when the Department of Agriculture by issuing a monthly journal and free pamphlets rendered it unnecessary, yet for many years it was the only agricultural publication in Australasia. Through the pages of its journal the Association encouraged discussion of such problems as the breeds of sheep and rotation of crops best suited to the district.

One of its first practical activities was an attempt in 1875 to introduce bees to pollinate red clover. Although this was not successful another attempt was made in 1884 and this was followed by other consignments which greatly benefited the clover production. To test the efficiency of new inventions it arranged trials so that farmers could judge the results for themselves. For instance in 1878 it arranged a trial competition on Boag's farm, Fendalton, for seven reaping machines including McCormick and Deering. Then in 1887 when there was much discussion about the effectiveness of certain sheep dips, it arranged a sheep dip trial. In 1900 it arranged a wool scouring competition for the purpose of testing the value of fleeces from various Merino rams all fed on grass only during the previous twelve months. By opening a Free Reference Library, by arranging lectures, by promoting Agricultural Conferences and a Frozen Meat Conference and by setting up a Committee on Noxious Weeds which prepared the way of an act of Parliament and in numerous other ways the Association in past and present devotes itself to the education and interests of the agricultural and pastoral community.

As the outlying districts were settled they formed their own branches of the A. & P. Association, the Timaru Association held its first show in 1866, the Northern A. & P. Association was founded in 1866, and held its first show

at Rangiora in 1870, the Ellesmere, Ashburton and Waimate Associations held their first shows in 1871, 1878 and 1881 respectively.


Sketch Map
to illustrate
THE EARLY CANTERBURY RUNS
References
Names of Stations painted thus— Orari
Rivers, Lakes, and Towns . . . Rangitata
Railways shown
Station Boundaries shown
Scale, Six Miles to Three Quarters of an Inch
Canterbury Bight
Otago
Pegasus Bay
Birch Hill
Glenlyon
Glentanner
Rhodoro Downs
Irishman Creek
The Wolds
Sibbald's Pass
Lawson
Greenhills
Grampians
Waitangi
Opawa
Springs
Albury
Rollesby
Clayton
Richmond
Mesopotamia
Hakatere
Lilybank
Stagnenchaugle
Upper Lake Heron
Lower Lake Heron
Manuka Point
Mt Algidus
Double Hill
Lake Coleridge
Castle Hill
Avoca
Blackford
Winchmore
Highpeak
Mt Torlesse
Gracieburn
Lochinvar
Mt White
Snowdale
Ohuru
Ash Head
The Lakes
Horsley Down and Heathcote
Irishman Bush
Cragroft
Valetta
Homebush
Malvern Hills
Corwar
Longata
Lavington
Waldon
Camla
Milton
The Desert
Sandy Knolls
Broadlands
Coringa
Ashley
Acton
Waimate
Otaio
Waihaorani
Hanatarama and Hanatarama Downs
Waitaki
Opawa
Kakahu and Opuha Gorge
Mt Somers
Orari Gorge
Mt Peel
Rangitata
Orari
Coldstream
Pareora
Blue Cliffs
Station Peak
Mt Nimrod
Mt Arrowsmith
Mt Hutt
The Point
Highbank
The Pinnacle
Westerfield
Mt Somers
Sullivan
Anama
Arundel
Rakaia
Ashburton
Rangitata
Lagmhor
Ben Ohau
Tekapo
Lake Pukaki
Lake Ohau
Lake Tekapo
Lake Alexandrina
Lake Benmore
Lake Ohau
Lake Pukaki
Lake Tekapo
Mt Cook Station
Glentanner
Rhodoro Downs
Irishman Creek
The Wolds
Sibbald's Pass
Lawson
Greenhills
Grampians
Waitangi
Opawa
Springs
Albury
Rollesby
Clayton
Richmond
Mesopotamia
Hakatere
Lilybank
Stagnenchaugle
Upper Lake Heron
Lower Lake Heron
Manuka Point
Mt Algidus
Double Hill
Lake Coleridge
Castle Hill
Avoca
Blackford
Winchmore
Highpeak
Mt Torlesse
Gracieburn
Lochinvar
Mt White
Snowdale
Ohuru
Ash Head
The Lakes
Horsley Down and Heathcote
Irishman Bush
Cragroft
Valetta
Homebush
Malvern Hills
Corwar
Longata
Lavington
Waldon
Camla
Milton
The Desert
Sandy Knolls
Broadlands
Coringa
Ashley
Acton
Waimate
Otaio
Waihaorani
Hanatarama and Hanatarama Downs
Waitaki
Opawa
Kakahu and Opuha Gorge
Mt Somers
Orari Gorge
Mt Peel
Rangitata
Orari
Coldstream
Pareora
Blue Cliffs
Station Peak
Mt Nimrod
Mt Arrowsmith
Mt Hutt
The Point
Highbank
The Pinnacle
Westerfield
Mt Somers
Sullivan
Anama
Arundel
Rakaia
Ashburton
Rangitata
Lagmhor
Ben Ohau
Tekapo
Lake Pukaki

CHAPTER XI.

Station Life

THE squatters came from all walks of life, baronets, younger sons of good families, soldiers, sailors, parsons, lawyers, tradesmen, shepherds; some were graduates straight from Oxford and Cambridge, some had come from England, Scotland, Ireland, others from the older settlements in New Zealand and many from Australia. Thus it was a British way of life that was transplanted to the tussock plains and foothills, many of the frills had been discarded as unsuited to the colonial life and had been replaced by customs adapted to colonial occupations and colonial freedom. Here barriers of class were lowered; English customs and traditions might linger in town society, but in the country where owner and worker endured the same discomforts and difficulties, worked together and frequently lived together, the artificial divisions were largely abandoned in face of the realities of every day life. Life was simpler and the needs few, and "when occasion required, they (the colonists) do not object to black their own boots and expect newcomers to do the same."

When a squatter arrived at his run, he first built yards and such accommodation as was required by the sheep, and then he began the important task of providing adequate shelter for himself. Near areas of bush, huts were built of timber, but most were made of "wattle and daub." In the early days the Rhodes lived on the Levels station in a hut thirty feet long, twelve feet high and with walls six feet high. The walls were built of totara slabs lined with cob, and the roof was thatched with tussock and raupo. There were two rooms unconnected with each other by any door, the bedroom with a loft above it where the maid slept, and a drawing room, dining room, and kitchen combined, which had a large open fireplace at one end. When making wattle and daub huts, the clay was puddled with the feet or by bullocks, and when it was well mixed chopped

tussock was added. Totara posts were put in at intervals, leaving space for the doors and windows, then wattles were nailed on the outside of the posts about eight inches apart. The clay and tussock mixture was placed between the posts leaving a smooth wall on the inside, but well over the wattles on the outside. Then both the inside and the outside were plastered with thin clay containing no grass; this gave a wall about 15 inches thick. The roof was then thatched with snow grass, tussock or raupo, whichever was at hand.

With the progress of the settlement, and as time and money became available, the squatters built homesteads of timber or occasionally of bricks and stone. In 1865 a bigger and more comfortable homestead was built on the Mt. Peel station. The building of such a house was an immense undertaking, both the bricks and timber were produced on the place. It was of Victorian gable style and had twenty rooms; to the visitor the sliding windows seemed rather old fashioned, but those who were foolhardy to indulge in more modern windows that opened outwards saw them smashed to pieces in the first nor'-west gale.

Some settlers had weatherboard houses cut out in Christchurch; the boards, mostly New Zealand kauri, were sawn into the requisite lengths by machinery and all the carpentry was done there, leaving only the frame to be fitted together when the drays brought it to its destination. The great advantage of a wooden house was the rapidity with which it could be put up; no time was wasted waiting for plastered walls to dry. A great contrast between the primitive hut erected on the wind-swept tussock and the well built houses and lovely gardens of later days, is provided by the following description of the Heathstock homestead in 1865. "We drove through the plantations and another gate, and drew up at the door of a very large handsome brick house with projecting gables and verandah. The verandah is covered with honeysuckle and other creepers, and the gable end of the house is one mass of yellow Banksia roses in full bloom. A stream runs through the grounds fringed with weeping willows which are in the greatest beauty at this time of the year with their soft feathery foliage of the tenderest green. The flower beds are dotted about the lawn, which surrounds the house and

slopes away from it, they are brilliant patches of colour, gay with verbenas, geraniums and petunias. Here and there clumps of tall trees rise above the shrubs and as a background there is a thick plantation of red and blue gums to shelter the garden from the strong North West winds. The inside of the house is as charming as the outside, and the perfection of comfort; but I am perpetually wondering how all the furniture, especially the fragile part of it, got here. When I remember the jolts, ruts and roughnesses of the road, I find myself looking at the pier glass and glass shades, picture frames, etc., with a sort of respect due to their having survived so many dangers."[9]

Homely lodgings corresponded with spartan fare. Kitchen equipment was limited to a few plates and pannikins, billies, saucepans and a frying pan, and all cooking was done on the open fire or in the invaluable camp oven. The menu was monotonous, mutton, damper, and home-baked bread; "dripping was served for butter, sticky brown sugar for sweetening black tea, and the making of duffs, dough boys and roly polies." Once the sheep station was running smoothly, men could devote some time to a vegetable garden, and when cows and fowls arrived there was plenty of scope for the ingenious housewife to bring variety into the daily fare.

Although the station owed its progress and development to the men folk, the home station owed its development to the women folk. These women, brought up amongst all the amenities of civilization, when transported to the strange, uninhabited wilderness showed remarkable initiative, courage, and perseverance in carrying out their daily tasks. Here is a description of the life of Mrs Hornbrook, the first white woman to live in South Canterbury. "Every day was strenuous; she must cook for her family and for all the station hands as well,"—no easy matter when all the cooking had to be done in saucepans and camp ovens—"she must make her own butter, bake her own bread; she must clothe her family with hand sewing and knitting, she must look after her dairy—and often enough after a weary day she would be called out as she was getting ready for bed, to prepare supper for a party of explorers, as many as ten or a dozen (for every explorer after country, and the land was teeming with

them, would make Arowhenua a night haven and Mrs Hornbrook would provide food and shelter); and after supper, she would cook food so that they might leave with a meal sufficient to carry them to the next place of call in the morning. This would mean no rest till after midnight and she would be afoot again at daybreak."[14] In these enlightened days of electric light, gas, electric and patent coke ranges, refrigerators, vacuum cleaners and washing machines, it is difficult to realize the amount of work involved in the ordinary household duties. For instance, the weekly washing at Malvern Hills entailed two days' hard work—"all the clothes had to be taken to a boiler fixed on the side of a hill, for the convenience of the creek, washed and rinsed under a blazing sun, amid clouds of sand flies. Not until evening was the really hard day's wash over, and the garments fluttering in the valley behind the house." Then if a nor'-wester sprang up in the night there would not be a sign of any clothes next morning. "Heavy things such as sheets or table cloths might be safely looked for under the lee of the nearest gorse hedge, but it would be impossible to guess where the lighter articles had been whisked to. A week afterwards the shepherds used to bring in stray cuffs and collars. Of course everything was dirty and had to be washed again. We had a mangle which greatly simplified matters on the second day, but it used not to be uncommon on back-country stations to get up things with a flat stone heated in ashes for an iron."[9] Moreover, many of these pioneer women had to cope with their manifold tasks alone, until they could persuade a young immigrant to come up country with them. As the supply of women servants was nothing like equal to the demand, they showed great independence of spirit and demanded high wages. Many of these servants were thoroughly inexperienced and it was difficult to know where to begin their education in domestic arts. When "a girl fresh from the south of Ireland who knows no fire but one of peat, to whom the coal scuttle and black lead conveyed no meaning" was asked to perform the ordinary household tasks, such incidents as the following might arise: "Kathleen, go and fill the coal scuttle." To whom Kathleen, willing to oblige but helplessly replied, "An please, mom, shall I fill it at the pump?" "Another amiable per-

son was told to make some toast. This she attempted to do by cutting the bread into slices, and placing them in the toast rack and laying the whole before the kitchen fire to cook." However, by the exercise of a little patience on the part of the mistress these girls soon made good servants, and Tripp of Orari Gorge came to prefer the Irish women servants to the Scottish because the former had more feeling and would not leave at a moment's notice, whereas the latter would leave without compunction when their time was up, no matter how pressed for help their employer might be.

When the nearest shops were perhaps fifty or a hundred miles away, the provision of adequate supplies of food and station requisites was a difficult problem. Sometimes the drays would be delayed by rivers in flood, or bad weather, and supplies ran out, so then flour and tea would be borrowed from neighbours. Mrs Rhodes was in charge of the stores for the Levels station, and this was no light task for goods had to be brought from Lyttelton by sea and then carried from Timaru to the Levels station by dray. A consignment of stores in 1852 consisted, among other things, of:

> 25cwt. sugar, 2 chests of tea, 1 ton flour, 2 bags rice, 1 box raisins, 1 bag coffee, 12 pairs good assorted blankets, 3 pieces blue drill, 3 pieces white drill, 4 doz. moleskin trousers, 3 doz. worsted hose, 1 doz. sou'-westers, 1 doz. of another kind of hat, 1 keg tobacco.

After shearing, the drays were kept busy "carting" out the wool, and on their return journey from Christchurch brought the year's supply of stores. On the dray's arrival at the station there was a scramble to unpack, examine and put away the varied goods. "The flour occupies a dry, lofty, but awkward place to get at, only to be reached with a ladder, and the lavish expenditure of much strength in carrying up the bags established a claim for a nip of grog to old John, the rouseabout, which was never disallowed. The red case of Hollands, or square, as it was called from the peculiar shape of the bottles, whether broached or not was safely placed under lock and key. Then the mistress opened the journal, and with careful hand following each line took note from whence flour, sugar, tea, tobacco or

grog had been borrowed, so that from the newly replenished stores, debts of this kind should be at once repaid to friendly neighbours. For often when stores had run low, the old bay mare had been saddled and a boy sent 15 or 20 miles for the loan of a few pounds of flour, just to go on with. Now, after the necessaries just mentioned, perhaps no article excited keener attention than boots, helping hands very quickly discovered the package that held them. 'I can feel 'em, here's the water tights,' was no sooner bawled out, than there seemed to fall on the younger portion of the busy group an apathetic or listless feeling for the job in hand. There was now expressed, not altogether silently, such an irrepressible longing to try on the boots that I believe it had to be indulged by the ruling powers. Then ensued a rush for choice, bickerings with contention, discussion about sizes, every boy's ambition evidently being centred in an endeavour to appropriate the most manly looking water tights that the package contained. As the young workers busily emptied, cleared away straw, papers, and packing cases, the clattering, clumping noise of new boots sounded merrily over the boarded floors for the remainder of the day."[15]

These isolated communities, always hungry for news about their fellow colonists and their relations at Home, were greatly excited when the mail arrived. All crowded round the poor postman, who got no peace till he had told all the latest news and answered endless questions. Once their curiosity was partly satisfied the hungry postman was allowed to have a meal while they eagerly read their letters.

By 1859 there was a daily mail between Christchurch and Lyttelton; there was a mail once a week from Lyttelton to Akaroa, and twice a week from Christchurch to Kaiapoi, and other mail services were being established throughout the pastoral districts. In 1858 the first mail service was instituted when Baines carried the precious bags on horseback from Christchurch to Waitaki. The service was a fortnightly one; the stages were from Christchurch to Acton on the Rakaia; from there to Macdonald's of Orari; then to the Royal Hotel, Timaru; thence to Waimate, and next day to Waitaki, returning to Waimate the same day. In the early 'sixties Baines took Mannering into partner-

ship and they carried the mails in two Yankee waggons each drawn by two horses; one started from Christchurch three times a week and the other from Waitaki; they met at Turton's Accommodation House, Ashburton, stayed the night and transferred mails and passengers and returned to Christchurch and Waimate respectively.

A fortnightly mail service to the Mackenzie Country started in 1861 and that year Baines made arrangements with the Lyttelton Times to take newspapers to Timaru. Three years later Cobb and Co. took over the coaching service and the mail, but as the settlement progressed they, in their turn, were superseded by the railways. Frequently the runholders in a district came to some agreement to collect mails regularly instead of depending on chance travellers. About 1863 the runholders in the Ashburton Gorge arranged to take turns in bringing the mail from Ashburton once a week. In much the same way the station owners about Hanmer subscribed and got the tenant of Jollie's Pass Hotel to ride to Waiau once a week for the mail, and then three men up the Waiau took turns in collecting it from Hanmer.

But even in those days life was not all work. There were eeling expeditions, exciting wild pig and cattle hunts, horse races at shearing time, the pleasures of summer walks, picnics, and swims in the river pools, and in winter, skating on frozen lakes and tobogganing down snowy slopes. In the evenings music might be provided "by a station hand or bullock driver swinging out tunes on a concertina. And how the old rafters rang at Mt. Cook station in the 'sixties to the chorus of "Marching through Georgia," and "Paddle my Own Canoe," and later the forbidden strains of "The Wild Colonial Boy."[14] Some stations were fortunate enough to possess pianos, so music, though more refined, was enjoyed none the less for that. Perhaps some guests might arrive unexpectedly and there would be an impromptu ball on the verandah, the men dancing in slippers as their Cookham's boots had nails. Or if guests had come more prepared, the drawing room carpet might be taken up, the ladies would bedeck themselves in their finery and a more formal ball would be the order of the day. In this isolated life visitors were always warmly welcomed and generous hospitality was a feature

common to all stations, both large and small. During the days when no welcome guest came riding over the tussocks, books were the companions of stray leisure hours. At first collections of books were small, mainly a few treasured volumes that had accompanied colonists in their journey across the seas, but as time went by, more books were added. "For library, the Mackays possessed the Bible, a few books of sermons, and a record of the persecuted Covenanters. As early as might be the shelf was gloriously enriched by a full edition of Walter Scott's novels and poems, and a copy of Burns."[14]

Both master and man sought escape from the loneliness and wretchedness of life in the soothing forgetfulness of drink. When Butler came to Canterbury in 1860 he noticed a greater tendency towards drink than at Home. "Sheep farmers as soon as they get things pretty straight and can afford to leave off working themselves are apt to turn drunkards, unless they have a taste for intellectual pursuits. They find time hangs heavy on their hands and unknown almost to themselves fall into the practice of drinking till it becomes a habit." The men indulged themselves in a less refined and more open manner, and at certain times of the year the hotels in Christchurch were full of drunken men enjoying their annual holiday. But it is not for us who live lives of comfort and ease to censure those who, at times, felt they would go mad if they did not forget.

Life in those days was a terribly lonely and indeed monotonous affair. Shepherds lived for months on end at the back stations without seeing any living creatures but birds, dogs and sheep, endless sheep. Women felt a terrible feeling of loneliness and isolation, especially at times when the men went out mustering; and when there had been nor'-west gales and the rivers were high, the suspense of waiting for their return was almost unendurable. Weeks, months and even years might pass without their seeing another woman's face. Visits to neighbouring stations were not lightly undertaken when rivers were dangerous, distances long and children perhaps young and easily tired. One day was much the same as another except that Sunday was observed as a day of worship, rest and festivity. At Rockwood station on Sunday night the family and servants assembled in the dining room and the

head of the house read prayers. At their station in the Malvern Hills Lady Barker arranged a service every Sunday. It was held in the dining room and her husband read the evening service and the sermon. Shepherds, "cockatoos," their wives and children willingly travelled many miles to worship the God of their fathers. The Sunday feast included plum duff, the English symbol of good living and good cheer.

During the first ten years or so of settlement, when much had to be done in getting the stations started and when travelling was no easy matter, the squatters would only rarely visit the town, but as communication improved they were able to enjoy the social life of the town. Lady Barker described their usual post-shearing visit to Christchurch. "F. had his agent's accounts to examine, a nice little surplus wool money to receive and many other squatting interests to attend to; whilst I had to lay in chests of tea, barrels of sugar and rice, hundreds of yards of candle wick (the colonists used to make their own candles in moulds) flower seeds, reels of cotton and many other miscellaneous articles." These trips were not all business, frequently there were balls and "men who perhaps a few days before had cooked their own chops, and been strictly their own washerwomen, had to reduce themselves to the black beetle appearance of the evening exquisite of the nineteenth century—to adopt an eccentric collar and white tie, to adorn himself with a pair of 8¼ white kid gloves—to engage himself for a gallop—to 'believe the next was his waltz'—to talk quadrille talk—to walk arm in arm nowhere, and appear radiantly happy about nothing and more than this to rush with ices, and eat and drink rolled turkey, champagne, and ornamental jelly and game pie and tipsy cake, and lobster salad, all in the wrong course and out of order, just as the most advanced and polished exquisite does in the happy, finished, velvet country of England."[15]

These visits to town also provided an opportunity to indulge in the Englishman's love of sport. For instance on the first Anniversary Day there was a Grand Sports Meeting which included cricket, shooting and wrestling matches, wagers such as climbing a greasy pole and catching a pig with a greasy tail, foot and horse races. The

course was part of the tussock land in Hagley Park and everything was extremely primitive. The proprietor of the White Hart Hotel, entering into the festive spirit, provided a free dinner which no doubt was enjoyed by a jovial throng. While eating colonial mutton or drinking toasts, they would recall excitedly the day's events. "Bandy made a nice finish," or "Fancy Godley's Nugent beating Russell's Stationer." Then the following night a ball at the Golden Fleece brought to an end the three days' pleasure making.

At the second anniversary celebration there was a closer resemblance to a real race meeting. The course had been improved by removing the tussocks and roughly levelling the ground, whilst the approach near the combined grand stand and judge's box—a bullock dray—was roped in. Moreover the clerk of the course appeared in orthodox "pink," and many of the jockeys attracted attention by their full riding costume of silk jackets and caps and traditional boots.

While partaking of their weekly market dinner at the Golden Fleece on November 4, 1854, the farmers after talking about the usual topics of the weather, prices, crops, sheep and scarcity of labour, began to discuss racing and the need for a proper club. Thus a public meeting was held and finally the Canterbury Jockey Club was formed. It is of interest to note that our sheepmen were well represented on the first committee, the President was Cracroft Wilson of Cashmere, Culverden, Broadlands, High Peak and Cracroft; the Secretary was E. J. Wakefield; Treasurer, W. Guise Brittan; Committee, J. T. Brown of Mt. Thomas, John Hall of the Terrace station, C. C. Haslewood of Coringa and Capt. Westenra of Camla.

On March 6 and 7, 1855, the Club celebrated its first race meeting on its own course at Riccarton by greatly increasing the stakes from the Christchurch Cup of 1852, with £6/6/- added, to the Canterbury Cup of £50. At the same meeting the Ladies' Purse of £40 was won by Mr C. Turner's Cruiskeen, and the owner with commendable gallantry presented the stake to the Club as a contribution towards the cost of the erection of a stand for the convenience of lady visitors to the races.

A description of "The Road to the Races" in 1860 gives

some idea of the attraction these meetings had for the sheep owner and townsman alike. "Stations are left to themselves, their woolly occupants have been fleeced to their owner's content, the shops are well nigh shut up and nearly all make a day of it. At an early hour the road to the course begins to show signs of liveliness. The bullock drays, those essential slow coaches herald the way, —then come the horse teams, a little quicker, their movements interspersed with dusty pedestrians, with here and there a timid rider anxious to get on. Then the horsemen thicken and anon a motley collection of traps.—But here we are at last, the grandstand, the booths, the ropes and the judge's chair and the peelers (policemen) with their furry looking caps—all look quite cheerful under the influence of a sunshiny day."

Indeed the course at Riccarton looked very picturesque; in the background the glorious snowy mountains and in the foreground a bustling excited crowd, "there a jockey and his accoutrements, here a showy costume, there a splendid clothed horse, here a habit, plume and bright eye."

In later days, Carnival week or race week was instituted when all Christchurch was en fête. Visits to the races, to the Show, organized by the Agricultural and Pastoral Association, to a flower show, garden parties, dances and a ball in the Provincial Chambers completed the hectic round of pleasure.

Another equine pastime which our sheepmen enjoyed, was the steeplechase. About 1859 the first one was arranged by private individuals in the vicinity of Riccarton. The fences were mainly ditch and bank, a few had gorse hedges and in one case there was a flight of rails, but none was very difficult as the horses were new to the game. Waimate besides being a centre of racing in South Canterbury was famous for the steeplechases run at Willowbridge from 1873 onwards. Denis Dineen, who worked at Waimate, suggested to Michael Studholme the idea of holding a Grand National and as a result the New Zealand Grand National Steeplechase Club was formed. Willowbridge in 1875 was the scene of the first steeplechase organized under its auspices. The course was by no means an easy affair, the fences were stiff posts and rails, or gorse

strengthened with rails, and the water jump was a real test of skill and the downfall of many a confident rider.

Although the majority of men interested in horse racing were connected with sheep stations, perhaps few names are better known than Lancelot Walker. To him is due the credit of importing "Traducer," the famed sire of many winners; indeed at the Queen's Birthday meeting of 1872 all the important races were won by his descendants. Considering his subsequent fame Mr Walker must have often regretted the fact that owing to the length of the voyage out, and the difficulty of feeding the horse at Cape Town, he decided to sell him to Innes and his partner, Harris. During good times Walker ran several horses including Trump Card and Le Loup.

Racing in general, and Race Week in particular gave the squatter much pleasure and excitement, yet sometimes it was his lot to make trips to town for rather a different reason, namely to attend meetings of the Provincial Council or in later days the General Assembly in Wellington. On this occasion he would probably stay at "The Club." This was founded in 1856 by country residents or squatters to provide them with a town house during their visits to Christchurch. At first Mr Woodham's house at the corner of Durham and Peterborough Streets was leased out furnished, but in 1861 the present building on the corner of Latimer Square and Worcester Street was opened.

As a class the squatters were men of education, indeed many had had university education, and they took a prominent part in the political life of the community. Such men were Rolleston of Mt. Algidus, Clifford and Weld of Stonyhurst, Thompson of Lochinvar, a member of the Provincial Council and founder of the "Canterbury Standard"; Waitt of Teviotdale, a Provincial Councillor; William Peter of Anama, a member of the Legislative Council 1869-91; C. H. Brown of Double Corner who represented Cheviot in Parliament; Henry Tancred of Malvern Hills, head of the Provincial Executive Government, 1853-54 and 1855-57, also a member of the Legislative Council and minister in the governments of Sir Edward Stafford and Alfred Domett, also first Chancellor of the University of New Zealand till his death in 1884; Sir John Hall of the Terrace

station; Bealey of the Haldon station, third Superintendent of Canterbury; Fitzroy of Helserton, a member of Parliament; Brittan of Waterford, a member of Parliament, as were also Sir John Cathcart Wason of Corwar and Teschemaker of Otaio; J. B. Acland, one of the last of the life members of the Upper House; H. C. Walker of Valetta, a Provincial Councillor, Member of Parliament, Legislative Councillor and Minister of Education in Seddon's Government, and others.

This is an imposing list and shows what an influence these squatters have had in the political realm, and many bemoan their passing in these days when education, oratory, and statesmanship are lacking in our rulers.

An account of station life would be incomplete without some reference to the men who worked on the sheep stations. The shepherds, mostly Highland Scots right off the heather, were indispensable to the sheep station and with the help of their collies did most of the boundary keeping and mustering. They lived a very solitary life in their up country huts and only came down to the homestead once every three months to borrow a pack horse and lead it back laden with a quarter's rations of flour, tea, sugar and salt. For the most part they were fond of reading and took a great pride in their huts and gardens where they planted gooseberry, raspberry and currant bushes, vegetables and a few flowers. During his week's holiday in town he would buy a suit of clothes, two pairs of Cookham boots for hill walking, and some new books, the rest of his money he would put in the bank or lend it out on freehold mortgage. In marked contrast to the industrious, God-fearing Scot was the bullock driver who lived riotously and dangerously. The bullock driver, who had learnt his trade in Australia, lived a dangerous and comfortless life travelling over roadless country and treacherous rivers with a dray drawn by recalcitrant bullocks and sleeping out under the dray at night. Once or twice a year he went to town to enjoy himself, that is "to have a burst." He would stay at a hotel and fritter away his year's wages in drink, and then return to earn money for another such holiday.

As more men were employed, another characteristic

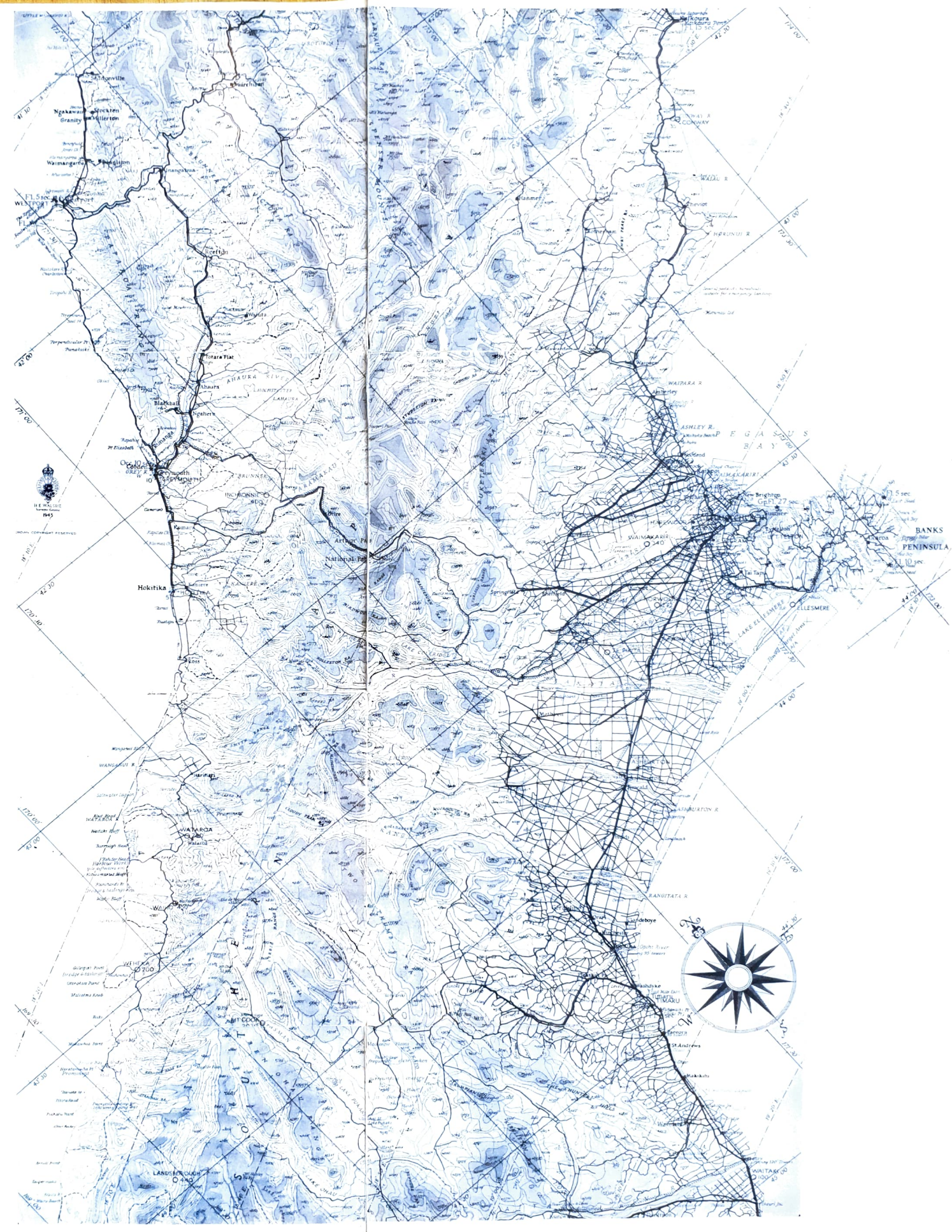
figure appeared, the station cook. He had frequently lived a wanderer's life and tried his hand at many trades. One cook had been in turn a sailor, a coffin maker in Texas, an attendant at a skating rink in Brazil, a soldier in Afghanistan and in South Africa, a ship's cook and finally a station cook. On the large plains stations when the land was broken up and English grasses and wheat were sown, these station cooks were kept very busy cooking for large numbers of hungry workmen. In 1880 there were 57 permanent hands on the Waimate station books. Among them were: the manager, book-keeper, 7 shepherds, 1 stockman, 2 grooms, 4 men's cooks, 1 gardener, 1 blacksmith, 1 striker, 1 carpenter, 1 saddler, 1 married couple. There were also anything from six to twelve contract teams working in addition to their own ploughmen. Harvest wages were about 9d. an hour and found; standard wire fencing cost £57 a mile; dagging sheep cost 3/- a hundred, or 25/- a week, digging potatoes 8d. a sack and sacks were worth 6½d. During the 'eighties musterers were paid £2, permanent shepherds £50-£75 a year, head shepherds £100 a year and found. Some of the shepherds saved as much as £50 a year out of their pay and took up land of their own after a few years' service and ultimately became quite wealthy. Among the men who did seasonal or occasional work on stations were musterers, shearers, sheep drovers and swaggers. Many of the shearers came over from Australia where shearing starts several months before that of New Zealand and they "brought some wonderful yarns and we heard all the back chat from York Peninsula to Adelaide."[8]

The shearers usually lived in long low buildings which had one or two rooms with rows of bunks lining the walls, another room with a large table and forms, and perhaps a separate kitchen where the cooks were kept busy baking large quantities of bread and roasting huge joints of meat for the hungry shearers. They started the day off with tea and cake, then later consumed tea and chops for breakfast, more tea and cake for morning and afternoon tea and supper, not to mention large quantities of meat and plum duff at midday and in the evening.

The men's clothes were extremely simple, a red or blue Crimean shirt, though red ones went suddenly out of fashion when the Government adopted them for prisoner's

garb; moleskin trousers, Cookham nailed boots, and a felt or straw hat. On Sundays, however, they donned a dark coat, white collarless shirt and a necktie which was pulled through a ring carved from a sheep shank or Quandong nut.

Living conditions varied from place to place depending on the relation between the squatter and his men. When he asserted his position as master in an offensive manner and tried to make as much money as possible, regardless of how the "men" fared, huts were apt to be "mere shells of cabins," bare walls and ceiling with no bunks, provisions, or comforts of any kind, and conditions generally bad. But where he tried to make life as pleasant as possible for his fellow workers, huts had stout walls, bunks, fireplaces, cupboards and all sorts of comforts. Tripp and Acland enjoyed a good reputation for their treatment of their shepherds, ploughmen and gardeners, and to encourage them to marry and rear families comfortable cottages were built round head stations. On the other hand there were some men who did not deserve good huts as they would chop up bunks, cupboards, tables and anything they could lay their hands on, rather than go outside to collect some firewood.


Kaikoura
Kaikoura Peninsula
Ngakawau
Granity
Westport
Waimangaroa
Hampden
Waipara
Amberley
Ashley R.
Pegasus Bay
New Brighton
Sumner
Lyttelton
Banks Peninsula
Akaroa
Hokitika
Kumara
Arthur's Pass
National Park
Springfield
Darfield
Sheffield
Ellesmere
Lake Ellesmere
Waimakariri R.
Rangitata R.
Mt Cook
Lake Tekapo
Fairlie
Geraldine
Timaru
St Andrews
Waitaki R.
Landsborough
Railways and Stations
Roads — Main — Secondary — Tracks
Heights in feet above Mean Sea Level
Up to 1000ft
1000 - 2000
2000 - 3000
3000 - 4000
4000 - 5000
Over 5000
The contour lines on this map are approximate.
Scale of Miles
10 9 8 7 6 5 4 3 2 1 0 10 20 30 40 50
DETAIL MAP OF CANTERBURY [1943]

CHAPTER XII

Transport by Land and Sea

TO the Canterbury settler separated from his neighbours by miles of brown tussock, by dusty, gravel strewn riverbeds of surging torrents of water and from his Homeland by a vast expanse of ocean, transport was an ever anxious problem. The first, and one of the greatest problems was the difficulty of communication between the port and the plains. When first arriving in the colony settlers had to make the strenuous journey from Lyttelton to Christchurch over the Bridle Path. If they were lucky they might have managed to buy a horse which they loaded with pannikins, kettles, billies, miscellaneous bundles, and pieces of furniture, otherwise they would have to carry them on their backs. The heavy goods went by water from Lyttelton over the Sumner bar and up the River Avon. As the bar was difficult to cross, many settlers lost their belongings in this, the last lap of their eventful journey. Besides the risk of loss, this method of conveyance was very expensive, the charge for carriage of goods from Lyttelton to Christchurch being 25/- a ton whereas the whole freight from England to the settlement did not exceed 30/-.

About the mid-fifties, an enterprising man, Mr Thacker, brought out a 20-ton coastal steamer, the "Alma" to run between Lyttelton, Heathcote Ferry and Kaiapoi. By completing a trip in a day as compared with the possible fourteen to twenty-one days of a sailing vessel, she brought considerable saving of time and money to the settlers. In fact freight charges were reduced by half. Unfortunately, early in 1856 she ran upon the bar and knocked two holes in her bottom. While grieving the loss of the "Alma," the settlers were more perturbed at the thought that other men might be discouraged from embarking on a similar venture, leaving Canterbury once more at the mercy of the winds.

Various attempts were made to build a road from

Lyttelton to Sumner via Evans Pass, but the work was usually brought to an end by the great expense of cutting through the volcanic rock. Captain Thomas started his road before 1850, but had to abandon it owing to lack of funds. By 1857 the line of the road had been opened by a temporary cutting over the pass, and though practicable for light carts, was still quite unfit for general traffic. The difficulties of transport were solved when, owing to the foresight and perseverance of the Superintendent, William Sefton Moorhouse, the railway tunnel which had been started in 1860 was opened to passenger traffic on December 9, 1867. The following poem describes in graphic terms the enormous advantages of the tunnel.

A CHARADE FOR THE TIMES

Morn on the waters purple and bright,
Burst on the billows the flushing light,
Bright in the beam it has caught from afar
Sparkles the surge on the Sumner bar.
Struggling through mists with a mimic wrath
Gleams the steep slopes of the Bridle Path.
Drooping his eyes and wringing his hands
On Lyttelton jetty a colonist stands.
What shall he do with his household gods
His chairs, his tables, his curtains and rods?
Greener than Erin's most verdurous turf,
Shall he trust them to Sumner's treacherous surf?
Or wearily drag them box and bag,
By Evans Pass or Gollan's Crag
Over the slippery zig zag?

But hark the voice of the cheerful bode,
Fitzgerald has opened the Sumner road.
Cheerily starts he with heart elate,
Case and package, bag, bundle and crate,
Till he finds as he nears the sticking point
That the times and road are out of joint.
See those carts of cruel stone,
Hark to the blister's warning moan,
Back from the path ye ill starred men
For the Sumner road is closed again.
While the Christchurch bell in mournful mode
Tolls my last for the Sumner road,
And seems to foretell its own sad fate
To the colonist and his luckless freight.

Hurrah for the cure of all our ills,
Hurrah for the triumph of sturdy wills,
Double and treble our efforts grow,
Northward and southward and westward ho
Shall the stream of population flow.
Its halcyon days our lands shall know
When free from the fear of tempest and tide
"My whole" shall pierce the green hillside.

—*Ward.*

The answer to the above is "Tunnel."

On the plains a dray could travel miles in any direction, but the main difficulty was to travel in the right direction, as in a trackless and almost featureless land it was easy to lose one's way. Such was the unhappy fate of Mr Draper, who, after being washed off his horse in the Rangitata, finally reached dry land. But, alas, the plains and all landmarks were hidden in a thick fog, and cold and wet he wandered round and round till he sank down from fatigue and exhaustion. Later his body was found on the Christchurch track. Settlers had to steer by pocket compasses, but later tracks were made using an outstanding hill or mountain or other prominent landmark as a guide. The swift-flowing rivers were the great barrier to communication on the plains. When the rivers were low they could be crossed at the fords, but woe betide the foolhardy who forced his unwilling horse into the swirling muddy waters after a "fresh." He would be lost in quicksands or carried down by the current before he even realized he was in danger. About half a dozen times a year the wide beds of such rivers as the Rakaia and Waimakariri are covered with rushing waters from bank to bank. Even punts were no good after a heavy fresh as they could work only in one stream, whereas there would be numerous streams almost all of which would be impassable for a horse without swimming him, which was dangerous in these treacherous rivers. The rivers were, if possible, a greater curse to the bullock driver than to the horse rider. When reaching a large river the contents of the dray would probably have to be practically unpacked, before it could be pulled through the water by the bullocks, then the passengers would be sent over by a ferry boat and then several loads of goods would

have to be ferried across. "But ferrying was no simple matter. At each crossing the boat would be swept well down stream by the current so that it was necessary to tow it upstream again each time to the ford. This towing meant that someone had to wade along the edge of the river pulling the boat behind him."[2] Although the bullock drays travelled very slowly, only fifteen to twenty miles a day at the rate of two to three miles an hour, they played an important part in the pioneering stages of settlement as they could carry heavy loads and travel over all sorts of country. The greatest drawback of bullocks seems to have been their habit of taking nocturnal strolls when not yarded, with the result that the driver might spend wearisome hours or even days "straining his eyes examining every dark spot in a circumference many miles in extent," galloping a couple of miles in one direction and then in another only to "discover that he has been lessening the distance between himself and a group of cabbage trees"[4] before he finally discovered them. Gradually the horse waggon replaced the bullock dray, though bullock teams were kept for heavy work and carting firewood at Stonyhurst till 1885, Mt. Peel till 1892 and at Glentanner as late as 1905. The only other animals that were used for transport were the trains of mules which carried stores to out stations in the back country.

As settlement progressed, roads were made, but at first these were very rough and after wet weather often impassable. Indeed there is a tradition that a dray and team of eight bullocks was swallowed up by a bog. Although this sounds rather like a traveller's tale, there are many true stories of drays sinking into quagmires and all the valuable cargo of flour being ruined. Henry Sewell describes a trip north in 1853. "The road out of Christchurch is formed for about three miles, but is in a rough state passing partly through swamps. Beyond Papanui a line has been laid out and some trenches cut, and here and there a roadway lined out. About five-six miles from Christchurch all indications of a road cease." However, six years later the Great North Road had been completely drained, all the requisite fences, bridges, culverts completed so that drays could travel from Christchurch to the boundary of the Province of Nelson. Between Christchurch and

Timaru the proper line of the road avoiding creeks and swamps, was being marked out, and to the south of Timaru heavy works were in hand including the laying out of drains, culverts and bridges. Travelling was made easier and a little less dangerous by the provision of accommodation houses and ferries.

These old public houses were indeed a welcome sight to the tired, hungry and thirsty men and beasts. Many of the licences were made conditional, and at Selwyn the licensee had to provide twenty-five beds, a watertight shed for horses, a trough of water for cattle, and feed for animals and a stockyard. Moreover, a lamp had to be hung in a conspicuous place so that belated travellers might find their way. Frequently, licensees had to maintain public ferries; the charges being 1/- for a pedestrian, 2/6 for a horseman, 5/- for drays, merchandise 10/- a ton, wool 1/- a bale. However, officers of the Supreme Court, magistrates, policemen and prisoners were to be ferried free of charge.

Next came the Coaching Days when Cobb & Co.'s coaches, with their "spanky teams of six in hand, changing at numerous places for fresh horses, went bowling over the plains." Though some have pleasant memories of drives on frosty mornings when the mountains stood out clear and sparkling white, others recall how the coach lost its way in the dark, or shiver at the thought of a perilous river crossing. On one such occasion the coach arrived at the Selwyn to find the river in high flood and the driver, "Stuttering Ned," refused to cross and the passengers had to spend the night at the hotel. Next day two passengers, one an auctioneer, being anxious to attend the saleyards at Southbridge, tried to persuade the driver. "After much shaking of his head, 'Stuttering Ned' dubiously consented. Everybody was bundled into the coach and Ned drove into the stream. Water foamed up against the horses' breasts, as they stemmed the torrent in an upstream direction, and the coach was dangerously down at one corner, only to mount up again at a different slope. The girls gave little squeals as they slid together in a heap in one corner, and the boys, holding on for dear life, watched every swirl and movement of the water and vehicle. . . The back door, well shut, kept the water out of the inside and soon the panting

horses dragged the rocking coach on to terra firma. Only at one place had the water gone over the horses' backs wetting the mail bags, but the horses had behaved splendidly and 'Stuttering Ned' was proud of them."[16]

The days of long arduous journeys and perilous river crossings were passing, roads were being improved, bridges built and finally the railway engine replaced the horse. In 1866 the Southern Railway had reached Rolleston, in 1867 Selwyn and in 1876 Timaru and 1877 Oamaru.

Some stations near the coast used to get their stores and send their wool away by ships. In early times the only means of access to Cheviot was Gore Bay, but this was very exposed. After 1879 Port Robinson, a natural port, well sheltered from all winds and seas except the north-east, was used, but it was difficult of access. The vessels would anchor about a quarter of a mile from the shore and surf boats would ship and land the wool and stores on the beach. Stations near the coast between the Waipara and Hurunui, such as Stonyhurst and Motunau, used the same method of sea transport. Until communication between North Canterbury and Lyttelton had been improved by the building of better roads and railways, Kaiapoi, on the Waimakariri, was quite a busy port for small vessels. Perhaps more important was Saltwater Creek, sometimes called North Post or more familiarly just the Creek. Most sheep owners sent their drays as far as the Creek where they unloaded their bales of wool and collected their stores, which were brought up the tidal river by small vessels. Land communication between Timaru and Christchurch was difficult on account of the rivers, so all the stores required by the Levels station were sent from Lyttelton by sea, in small boats manned by Maoris, or occasionally in larger vessels of 20-30 tons. Ships anchored off-shore while the cargo was landed in two whaleboats manned by station hands, many of whom were runaway sailors. When South Canterbury became more settled Timaru grew in importance as the trade centre of the district. Its shipping facilities were greatly improved after 1879 by the construction of a breakwater, and what was once an open roadstead became a port visited by large overseas vessels.

Ships were the vital link between the Canterbury farmer and the overseas markets. Ships brought the people

to its shores, brought the imports of stock, implements, clothing, food, and the many things required by the colonist, and carried away its exports of wool, and later frozen meat. The shipping companies most intimately connected with the development of Canterbury were Shaw, Savill and Albion and the New Zealand Shipping Company. Shaw, Savill and Albion is the oldest shipping company in New Zealand, as well as the first to carry frozen meat. In the 1850's Shaw Savill was sending out some fifteen ships a year to New Zealand and by 1869 the number had increased to sixty-nine, the largest ship being the "Mermaid," 1,320 tons. They had a large fleet of sailing vessels which were engaged in bringing immigrants to New Zealand. In 1874 the Albion Company had six 1,250 ton iron clippers, including the "Dunedin," which traded with New Zealand. About 1884 the two companies amalgamated and in the same year they built their first steamers the "Arawa" and "Tainui" each about 5,000 tons.

The New Zealand Shipping Company was formed by Christchurch merchants in 1873, mainly through the initiative of Mr J. L. Coster, manager of the Bank of New Zealand. Its headquarters were then at Christchurch. The first four ships purchased by the Company were the "Rangitiki," "Waitara," "Waimea," and "Mataura." During 1873-6 the Company dispatched 150 ships from London to New Zealand, and by 1883 it had a fleet of sixteen clippers, most of which were specially built for the New Zealand trade. The first direct steamship service between New Zealand and England was commenced in 1879 with the "Stad Haarlem" of 2,729 tons, and four years later the "British King" and the "British Queen," both about 3,550 tons, started a monthly service. During 1884-98 the Company ran five steamers in the New Zealand, Capetown, London, Cape Horn, New Zealand service. In 1884 the N.Z. Shipping Company, in conjunction with Shaw, Savill and Albion, started a regular fortnightly service between New Zealand and London. As business increased, it became necessary to obtain British capital and the headquarters of the Company were removed to London. To meet the demands of the frozen meat trade a new fleet was built with large insulated space.

CHAPTER XIII.

The Sheep Industry and the Town

THE progress and development of the town and the country are intricately connected, each largely depends on the other. It might be truly said that if there had been no Canterbury plains and no sheep no those plains there would have been no Christchurch, or at least a much smaller, poorer Christchurch. On the other hand if there had been no Christchurch, with its facilities for obtaining money, stores, for buying and disposing of stock, and for exporting wool, the development of the Plains would have been greatly hindered and they would not be so prosperous today.

"The story of Christchurch is like that of any other colonial city sharing in the progress and prosperity of the agricultural and pastoral community settled in the country behind it, a story of ups and downs, as lean years of depression are followed by seasons of prosperity, but in the main a record of great advance." The introduction of the freezing process caused a transformation in the commercial and industrial as well as in the agricultural and pastoral life of the colony; freezing works were built, increased exports meant increased shipping tonnage and increased prosperity brought an increase in land values.

During the first twenty years of settlement, land and sheep provided almost the only investments for capital in Canterbury. Everyone who had some spare money, no matter what his ordinary occupation, invested in land and sheep. Some leased a run and appointed a manager, others let the run with or without sheep, others bought sheep and put them out on terms. For this reason squatter parsons, such as Harper, Mathias, Aylmer and Wilson, became ordinary features of the social structure. Although £1,000 to £1,500 was required to make a good beginning in sheep farming, and double that sum was most favourable for a good run as 2,000 sheep could be kept with almost as little expense as 1,000 sheep, most of the squatters had

sufficient capital of their own to start a station. However, as expenses increased, the runholders began to borrow money from banks and companies. Money was needed for paying heavy fines for breaches of the Scab Act, for buying sheep to replace those lost during snow storms and floods, for the erection of more fences, for the purchase of freeholds and for the clearing and breaking up of land. The extent to which the sheep owner had borrowed from these establishments was shown when, after the slump at the end of the 'seventies and early 'eighties, many properties came to their hands. For example, the Bank of New Zealand took over Arowhenua in 1883 and for some years from about 1885 the Bank ran the station in the name of A. M. Clark who was their station supervisor. At that time Clark had under his control Riverslea, Albury, Eskbank, Waihaorunga and also Clarence reserve, near Kaikoura. Other institutions which took over stations in these years were Dalgety & Co., National Mortgage and Agency, and the New Zealand Loan and Mercantile Co. Ltd.

Stock and station firms have developed into the largest business interest in New Zealand with the exception of the banks. Originating as dealers in the produce of early sheep runs, and acting as the "intermediaries between the runholder and the British market, they soon developed into credit institutions, lending both against the produce in which they dealt and against the land." Implements, seeds, manures, and other farm requisites are provided on credit. This provision of credit has its disadvantages, as in times of depression the settler tends to become tied to the firm. To purchase stock, seed or implements, or perhaps even to pay his labourers, he may be forced to overdraw his account with the firm. In those circumstances the firm may stipulate that all his produce must be sold through them, and may also insist on changes in the management of the farm. However, in spite of these drawbacks it is true to say that these stock and station firms have assisted greatly in the development of sheep and mixed farming in Canterbury and the rest of New Zealand.

Of these large firms Dalgety & Co. Ltd. might be taken as an example, since its head office for New Zealand, in 1900, was Christchurch. When the population and trade of Otago and Canterbury were rapidly increasing Mr F. G.

Dalgety, who in 1846 had formed a company in Victoria for the export of wool and import of general merchandise, decided to extend the company's operations to New Zealand. His brother Mr Edmund Dalgety, accompanied by Mr George Buckley from the Melbourne office and Mr James Rattray from Geelong, came over to New Zealand and, about 1857, established branches at Christchurch and Lyttelton as Dalgety, Buckley and Co., and at Dunedin as Dalgety, Rattray and Co. In 1864 the partnership between Dalgety and Buckley was dissolved and the name was changed to E. S. Dalgety & Co. When the Otago and Canterbury firms were amalgamated by Mr Nichols of Tasmania, the name was changed to Dalgety, Nichols and Company. Finally in 1884 to consolidate the various interests in Australia and New Zealand, the several partnerships were converted into a limited liability company with its head office in London. This firm has grown up with the colony. By 1858 a store was built at Lyttelton for wool and miscellaneous imported goods. As settlement progressed branches and agencies were formed at the different centres such as Timaru and Ashburton.

By 1900 Messrs Dalgety & Co. Ltd. occupied an important place in the commercial life of the city. They were stock and station agents, and auctioneers, they gave special attention to the export of wool, tallow and other farm products, and at all the company's branches the business of absentees was undertaken. Moreover, the company held a large number of agencies including Shaw, Savill and Albion Company's direct steamers and sailers to London, the Peninsula and Orient Steam Navigation Company's steamers for London, and the Aberdeen and White Star steamers for the Cape and London.

Besides these New Zealand and Australian firms there were several local stock and station agents, including J. T. Ford and Co. and King, George and Co. Ltd. both founded in 1872, and Gould, Beaumont and Co. founded in 1875. One of the most notable of these firms is H. Matson and Co. Ltd., which was founded in 1862 in conjunction with Mr Charles Torlesse, and is still operating today. The varied activities of this firm, which acted as auctioneers, stock and station agents, wool brokers and general produce merchants, show to what an extent the farmer was dependent

on their services for the disposal of his products. In 1900 regular sales were held every Wednesday at Addington. At their rooms there was held a sale of skins and hides on Thursday, and on Saturday a grain sale. Sales of livestock were held weekly at Rangiora and Little River, monthly at Dunsandel, Darfield, Kirwee, and Head of the Bays, and periodically at Ashburton, Leeston, Oxford and Culverden. During the wool season extending from November to February, wool sales were held, and on an average 6,000 bales were marketed. The annual turnover in sheep was about 350,000, in cattle 12,000, and pigs 25,000. The turnover in grain, grass seed, and produce generally, was very considerable. The firm had sold more land than any other auctioneering firm in Canterbury and its land auction room had been the scene of many exciting sales.

Another firm that still functions, and the services of which have become almost indispensable to the Canterbury farmer, is the N.Z. Farmers' Co-operative Association of Canterbury Ltd., established in 1881. The Association was formed in order to provide farmers with facilities for realizing in the local, Australian, or London markets the best possible price for their wool, grain, frozen meat, hides and skins, at the lowest possible rate of expense by way of commission and charges, and to supply all kinds of goods of the best quality at the lowest possible prices. To achieve these ends expenses were cut down by building unelaborate premises in a less expensive part of the town. The essential feature of the Association was that members furnish the capital and reap the advantages derived from its use by becoming their own customers. Moreover the profits from the merchandise were divided annually amongst the shareholders in proportion to the business done, and a large percentage of the amount of commission earned is rebated to the sellers of wool, grain, etc. The company also acts as banker for many of its shareholders, and allows interest on daily credit balances. Advances of money are made on grown crops and wool clips, and no charge is made for commission, interest only being charged at the current rate. Besides discharging the functions of an ordinary stock and station firm by holding sales of live-stock and wool, the company runs a large general store on a

large scale; and it has numerous departments including grocery, glassware, earthenware, hardware, saddlery, seeds of all kinds, drapery, carpets, tailoring, and boots and shoes.

A company of rather a different nature was the New Zealand and Australian Land Company. This originated in the firm of Hankey and Company, which about 1865 became known as the Canterbury and Otago Land Association. This later merged into the New Zealand and Australian Land Company, which has its head office in Edinburgh. This company used to buy up estates and appoint managers, thus in 1864 Hon. Matthew Holmes bought the Acton and Hakataramea estates and the Levels estate the following year, and a little later the Pareora estate. Through the work of its servants this company has played a prominent part in the development of sheep farming in New Zealand. Under the inspiration of Messrs Davidson and Brydone, Edinburgh and New Zealand managers of the company, it pioneered the way in the frozen meat industry in New Zealand. The name of Mr. Davidson is also associated with the development of the Corriedale flock on the Levels, and one of their managers, Mr. Allan, did early experiments in irrigation on the Acton estate.

Market day, when the farmer and his wife came to town to do business and shopping, dates back in Canterbury to 1853. On Saturday, May 14, the first weekly market was held in Christchurch. It was visited by fifty people during the day and wheat sold from 10/- to 12/- a bushel. It was not until 1873 that the stock became such an important feature of the weekly market as to warrant the building of special saleyards. In that year the Canterbury Saleyards Company was formed and acquired 12½ acres of land at Addington. Here they built yards capable of accommodating 30,000 sheep, 1,500 head of cattle, 1,700 pigs and 200 stalls for horses, a central pavilion for the auctioneers and large refreshment rooms. The first sale at Addington was held in 1874.

Wool, the main source of Canterbury's wealth for many years, had little contact with the business life of Christchurch till local wool sales were started. The bales of wool, brought in from the stations by drays, carts and later trains, were placed in a wool broker's store till they

were shipped to the London market for sale. At first wool was shipped to Wellington and thence to London; sometimes it was consigned privately to London brokers, at other times firms bought the wool in Wellington and consigned it on their own account. In 1853 the wool exported from Lyttelton was only 8,182 lbs. valued at £410, and in the following year 132,000 lbs. valued at £7,095; the difference between these amounts was attributed to the fact that in 1853 most of the wool was included in the exports from Wellington, the last port of clearance, and the wool from some stations on the coast was shipped direct to Wellington, whereas in 1854 a shipping service was established between Lyttelton and overseas ports. On November 13, 1852, it was advertised in the Lyttelton Times that a first class ship would call at Lyttelton early in 1853 for the purpose of loading wool for London, and that the cutter "Kaka" would sail to various points along the coast to collect wool for this wool ship the "Stately." The first wool ship to leave Lyttelton direct was the "William and Jane," 498 tons, which sailed on March 27, 1856.

During the early years of the development of the colony, all the wool was consigned to London, where buyers from Bradford and from the Continent purchased their requirements of wool. As early as 1866 Messrs H. Matson & Company held a wool sale in their iron wool stores at Lichfield Street, but only 50 bales were offered for sale. In the same year D. Lockhart held a wool sale at the railway station sheds. By 1878 wool sales had increased in importance as is shown by the fact that at the opening sale of the season, one of the firms, Messrs Wilkins, offered 1,150 bales. Gradually a few firms made arrangements to hold combined wool sales or at least to hold them on the same day, and at prearranged times so that buyers could attend them all. Thus in 1881 J. T. Ford, Robert Wilkin & Company and H. Matson & Company held a wool sale at Matson's Land Sale Rooms. Small private sales came to an end in 1889 when the Christchurch Wool Brokers' Association made arrangements for wool sales to be conducted in the Chamber of Commerce Hall. The hall was suitably laid off for the occasion, a rostrum was erected and a space railed off to separate the buyers and brokers from the general public. There were 22 gentlemen in the ring set apart from the

buyers and "they had evidently made up their minds well before entering the rooms as bids were as quickly given as taken." At this sale 4,472 bales were offered by nine brokers. With the breaking up of the large estates and the development of smaller farms and smaller flocks, local wool sales developed to meet the needs of the small farmers, who found it difficult and expensive to send small lots to England. It was not till the 'nineties that the station owners began to realize the possibilities of selling their wool locally, and thus saving the risk and expense of consigning it to the consuming centre. The attendance of buyers from England and later America had a stimulating effect on local sales and better prices were obtained. At first the buyers were hampered by the large number of small lots, but in 1900 the practice was inaugurated of selling the lots of two bales and over first, and then of selling single bales with bag wool afterwards. After 1900 the importance of local sales increased still further and after 1918 French, German and Japanese firms began to send buyers to New Zealand.

The essential link between the wool producer and buyer is the stock and station firm, or farmers' co-operative society which acts as wool brokers. During the wool season, their stores, situated in Moorhouse Avenue near the railway, are the scene of great activity. Bales of wool are unloaded from waggons or railway trucks, then checked and weighed. The weight is then stencilled on the bale, while the weigh-in clerk records the owner's brand, number of bales, description and weight of each bale. Wool belonging to the small farmers and others who do not class their wool, is classed by professional classers in the wool store, and where different lots are too small the wool of several farmers might be pooled. (This has become much more frequent with the increased importance of the sales, buyers do not like small lots.) Prior to every sale the wool is valued so that the vendor can stipulate his reserve price. Several days before the sale the buyers carefully examine the catalogues prepared by each broker, take note of lines that interest them, visit the stores where representative bales of wool are displayed, and estimate how much the wool is worth to them. At last the great day comes. Buyers, brokers and farmers take their places; the noise

and hustle suddenly cease, and the sale starts. "They will start bidding as low as they can, even though competition brings the price up quickly, but a hitherto vociferous buyer becomes silent when his limit is passed. The brokers need a quick ear and a quick eye. The bench of buyers in front of him flashes bids in every direction, and it is not easy to decide exactly which noise, vaguely resembling a number, comes last from the shouting mass. And yet when the bidding closes on each lot, he is almost infallible in announcing the price and name of each buyer."

Although in 1900 the three woollen mills in Canterbury were using only 1,000,000 lbs. they merit attention as being the pioneers in this industry in Canterbury, which on account of the vast resources of raw material at hand, should be developed on a greater scale than hitherto. In an effort to encourage this industry, on November 4, 1874, the Provincial Council offered a bonus for the manufacture of woollen goods, but the Council was destined to be abolished before the woollen industry was commenced in Canterbury. In 1878 the Kaiapoi Woollen Company bought the business of the Hon. J. J. Peacock and was registered with a capital of £15,000 in 15 shares of £1,000 each. In 1880 the company extended the number of its shareholders and capital to £100,000 represented by 4,000 shares at £25 each, and by 1900 this had been increased to £200,000. The mill occupied 11 acres, the main building 220 ft. by 80 ft. was three storeys high and contained the teasing and carding machines, and on another floor the spinning mules. Contiguous to it were three weaving sheds. At the west end of the main building were placed the engine room, milling house, dye house, dying house and finisher's room. Various other buildings were for storing and sorting wool, while close at hand was a sulphuring house. The remaining buildings included private gas works, manager's house, stables, carpenter's shop and smithy. The coal was obtained from the Malvern Hills and the engine had been made in the colony by Messrs Scott Bros. Among the woollen goods manufactured were superfine black cloth, coatings, tweeds, frieze, over-coatings, serge blankets, rugs, shawls, stockings and fingering yarns. In the factory there were 240 hands employed and in the ready made clothing department and

warehouse in Christchurch there were 170 persons with over fifty sewing machines, and by 1900 the factory employed 400 and the warehouse over 550.

On October 14, 1885, the manufacturing of woollen goods was started in Ashburton, and the Mayor, deeming the occasion worthy of celebration, proclaimed a half holiday. The eager citizens availed themselves of the opportunity and thronged to the mill, which was opened to the public. Early in the 'eighties a society arose to foster local industries and shortly afterwards a company was formed for the manufacture of woollen goods. A brick building 200ft. by 90ft. was built for the weaving looms; the tee piece 130ft. by 30 held the engine room, boiler house, and store room. The boilers and engines were made by Messrs Scott Bros. of Christchurch and a second-hand plant was purchased in the colony. However, at this point the directors came to the end of their money, and in spite of strenuous efforts to increase the share list and borrow money, they were forced to go into liquidation. In 1885 another company was formed with a nominal capital of £30,000 in 6,000 £5 shares. It bought out the old company and took over its mill which was then fitted with the latest inventions and provided with all that was necessary for carrying on the manufacture of tweeds, blankets, flannels and other woollen goods. This factory was under the capable management of Mr Ramsden, a Yorkshireman "from ayont the Tweed," and at first employed 30 hands.

The South Canterbury Woollen Manufacturing Company, Timaru, was established in 1885 by a local limited company which built the commodious mill and commenced manufacturing. Unfortunately after a few months, probably in consequence of want of experience the company went into liquidation. Between 1888 and 1891 it was worked by Messrs Atkinson Bros., and then in 1892 it was purchased by James Lillico, James Crosbie, and John Macrae, all of whom had had experience in Scottish mills. They soon put the mill into working order and bent their energies to making it a success with the result that from 1894 to 1900 the mill had been fully employed night and day. Bannockburn and saddle tweeds, rugs, blankets, shirtings and flannels, and hosiery yarns for knitting manufacturers, were made by the factory, which employed about 100 hands.

Before the inauguration of the frozen meat trade, the business man, like the farmer, had been chiefly interested in the sheep as a producer of wool. Prior to 1882 small boiling down plants had been set up at various places. The New Zealand Meat Preserving Co. in 1869 had works at Styx, Templeton and Washdyke. Of these the Washdyke works were the largest and most important. Boiling down was begun there in 1870 and meat preserving in 1871; it employed 120 hands and treated 750-1000 sheep daily. The first lot of preserved meat was shipped from Dunedin on February 17, 1871. The total quantity exported from Timaru during 1871 was 1,266 cwt. valued at £2,400, in 1873 2,280 cwt. valued at £6,000. On January 15, 1873, it was reported that 2 lb. tins of meat were selling in London at 7½d. lb., the demand being in excess of the supply. Accommodation proved inadequate and the works were enlarged. The first company in Canterbury to freeze meat was the Canterbury Frozen Meat and Dairy Produce Co. which had a capital of £20,000. John Grigg of Longbeach, John Tinline of Amuri, John Macfarlane of Coldstream, Rangiora, and Mr John Cooke, Canterbury manager of the N.Z. Loan and Mercantile Agency Co. called a meeting on November 11, 1881, which led to the formation of the company. The first directors were Messrs Fred Bank, William Chrystall, John Cooke, John T. Ford and John Grigg and Mr Fred. Waymouth was appointed secretary pro tem. Works were built at Belfast and a Haslam refrigerating machine of 4,000 cubic feet cooling capacity was installed. The daily killing and freezing capacity was only 250 to 300 carcases. Slaughtering began on February 16, 1883, and in April the first shipment was made from Belfast when 6,198 carcases were sent home on the s.s. "British King." The company maintained a high standard of quality. Only prime wethers, maiden ewes and prime lambs, though in 1890 ewes, and later, second quality lambs, were frozen and shipped. To meet the increased demand the works were enlarged and completely remodelled in 1887, and new refrigerating machines were installed in 1893 and 1896. The scope of the company's operations was widened when attention was devoted to the manufacture of by-products in 1889. By 1908 the Belfast works had a killing and freezing capacity of 6,000 sheep and lambs per day, and

storage capacity of 120,000 carcases. The company established freezing works at Fairfield, Ashburton, in 1899, and at Pareora, South Canterbury, in 1904; together these had a freezing capacity of 4,500 sheep and lambs per day, and storage space equal to 120,000 carcases. The company was greatly handicapped in its early years by the high rates of freight and by the difficulty of securing sufficient insulated tonnage at the busy period. These problems were gradually solved after 1887 when this company, together with Nelson Bros., and the Southland Freezing Company, signed a contract with the Tyser Line, under which the consolidated charges were reduced from 2½d. per lb. to 2d. After the introduction of steamers this was further reduced to 1¾d.

The Canterbury Frozen Meat Company confined its activities to freezing sheep for the larger sheep owners, it neither bought stock nor exported on its own account. The small farmer who could not afford the expenses and risks involved in consigning meat to the London market and who did not have sufficient stock to enable him to contract for freezing space or to make regular shipments to London was deprived of the benefits of the new industry. Dissatisfaction came to a head in 1888 when, under the inspiration of Messrs James Watt, Peter Cunningham and John Cooke, the Christchurch Meat Company was formed to conduct business on new lines. This company bought stock from the farmer and undertook the freezing and exporting on its own account. The company bought the old Templeton preserving works and changed the name to Islington. Its works were equipped with all the latest devices, cold air refrigerating was originally used, but later the ammonia compression system was adopted. Islington started with a slaughtering capacity of about 500 sheep per day, and in 1899 it could put through 9,000 daily and could store 140,000 carcases. In 1893 the company extended its operations to South Canterbury where it bought the business of the South Canterbury Freezing Company at Timaru. These Smithfield works soon had a slaughtering capacity of 6,000 sheep per day and a storage capacity of 120,000 carcases. In 1899 it took over the Wairau Freezing Works at Picton, and in 1905 the New Zealand Refrigerating Works at Burnside

and Oamaru. The Christchurch Meat Company, since 1891, has devoted special attention to the manufacture of by-products and has tried to make most of its profits from these. By 1900 several qualities of tallow were manufactured, fertilizers were made out of blood, bones and other material, and a first class glue was made from the cuttings of pelts. Its works were largely self-sufficient units, casks and packing cases were made by machinery at the works, there were cutting and sewing machines and a printing press where bags for the frozen sheep were made and branded.

The factors which have played an important part in the development of Christchurch apply equally well to the smaller towns and rural centres, which have grown to meet the needs of the farming population. Stock and station firms have established branches and agencies throughout Canterbury, the Farmers' Co-operative Association has erected stores which supply the varied requirements of farmers for food, clothes and farm implements; stock sales, and ram and ewe fairs, are held at regular intervals in the more important centres, woollen mills have been established at Ashburton and Timaru, and Timaru has become Canterbury's second largest town, holding its own wool sales, and exporting from its port meat frozen at its own works. Thus the sheep industry has assisted in the progress and development of the business, commercial and industrial life of the whole of Canterbury.

CHAPTER XIV

Conclusion

THE Canterbury of the present is, to a very large degree, the product of the sheep industry of the past. The people, their social, commercial and political life all bear witness to its influence. The sheep industry attracted a class of men who were wealthier than the ordinary immigrant. The Australian squatter was a valuable acquisition to the colony, not only because of the capital and sheep he brought with him, but also because of his valuable experience of sheep farming conditions and method. For many years wool was the sole important item of export and provided the means of importing foreign goods for both the rural and urban populations. In days when there was no possibility of exporting agricultural produce, the pastoral community provided a market for such products as wheat, barley, oats and potatoes, and in its turn the agricultural community was supplied with plentiful and cheap supplies of meat.

The town dweller also benefited from the industry for "not a dray will come from the interior with wool for exportation but will carry back with it some part of the product of your farms. And not only your rural, but your town lands must share in the prosperity. For the wants of the shepherd and herdsman are not confined to the products of one country alone, his demands call into existence the merchant and shop keeper to supply him with those articles of commerce which are received in exchange for the wool which he produces. Commercial enterprise is awakened in the towns and the values of town lands are thus the creation of commerce." Later this industry gave employment not only to people on the stations, but also in wool scouring works, woollen factories, fellmongeries, boiling down factories, and above all freezing works; not to mention those engaged in the transporting of wool, sheep, frozen mutton, as well as implements, seeds and stores.

Also in response to its needs, transport and communication services have been improved, roads, bridges, and railways have been built and the frozen meat trade has had far reaching influence on the development of colonial resources and has led to the establishment of an almost weekly steamship service to England.

In relation to the land the story is a less happy one. Through ignorance of conditions in this new land, the squatter who spread over the plains and up the river valleys with his fire brands and flocks has bequeathed to later generations the problem of soil erosion, the wide extent and seriousness of which are just beginning to be realized in New Zealand. "Human occupance of Alpine Canterbury has been small, but its cumulative effect on the country is disproportionately large. It has involved constant burning of the tussock grassland, timber cutting for fuel and fence posts, and the introduction and overgrazing by millions of merinos and later cross bred sheep, of rabbits and of deer which have brought in their trail a reduced steppe vegetation, depleted grazings, and soil erosion."[13] The disturbance and in some cases the complete destruction of the natural vegetative cover have resulted in the formation of shingle slides, on a much larger scale and extending over a much wider area and have caused land slips, gullies, soil creep in the mountains, hilly and undulating areas. They have caused valuable river flats to go out of production as greater amounts of debris have been washed down from the mountains and deposited there, and the floods that occur because of the absence of vegetative cover have necessitated costly river control works. In the plains the later phase of the sheep industry has been of immeasurable benefit, the substitution of mixed farming and crop rotation for the cropping of wheat has done much to enrich the exhausted soil. Also the water races and the provision of fat stock for export have been largely responsible for closer settlement and the growth of small rural centres on the plains. "I ascended a hill about two miles from Christchurch and looked out on what was indeed an object lesson to one who would know what the industries of British colonies can achieve. Before me was a vast plain extending to the mountain regions which were 40 to 100 miles distant. The plains that thus

stretched before me for hundreds of square miles were the famous Canterbury Plains, as far as the eye could see. These appeared to be richly cultivated, hedges often made of golden blossoming English gorse dividing the fields. Pleasant farmhouses, tree surrounded homesteads were scattered over the flat plain which I observed was crossed with railway lines and many good roads. It was winter and there was stubble where the crops had been, but I know that on the fertile soil are produced enormous crops of wheat, barley, oats, rye and other cereals, turnips, potatoes, peas, clover, mangolds, and that here are orchards where every English tree flourishes exceedingly. Last year the yield of wheat alone in the Canterbury district was considerably over five million bushels—one and a half million acres of land have been ploughed and laid down in English grasses. The district is celebrated for the splendid quality of its sheep, on the higher land Merino predominating, on lower land crosses of Leicester, Lincoln, Romney Marsh and other English breeds predominating. The development of the frozen meat trade has given a great impetus to sheep breeding in the district. Last year nearly two million carcases were frozen in the Islington works alone, which belong to the Christchurch Meat Company and can put through 6,000 carcases a day and store 120,000 carcases. Apparently everything is produced in this wonderful district. There are coal mines, here, too, quarries of excellent building stone, and fine timber in the hills. Manufacturies of all sorts have been established in this district, jam making factories, saw mills, potteries, meat preserving works and others too numerous to mention here. As one gazes at this great plain extending from the ocean to the snowy mountains, which human industry has made so rich, one remembers with amazement that only fifty years ago, this was a desolate uninhabited wilderness with tussock, fern, thorn bushes and reeds alone growing on it." This somewhat sweeping and eulogistic description of the cultural landscape of Canterbury in 1900, when compared with the description of the natural landscape described in Chapter I shows the extent of the transformation wrought by man and his flocks. Where rushing rivers threatened the life of man and beast, where rolling breakers endangered the immigrants landing, where mighty mountains

reared their heights, man has built bridges, breakwaters and tunnels. Man could not alter the climate but he has modified its effects by planting trees for shelter against the howling nor'-wester, and by constructing water races to provide abundant water in the heat of summer. Where there were quaking bogs and impenetrable swamps, matagouri thicket and miles and miles of tussock grassland, there are now cultivated fields, green English grass paddocks and innumerable sheep. And alas let us not forget that where there was once a bush-covered mountain side there is now a mass of moving shingle, and in some places where the ground was covered with dense tussock there is now a barren desert.

Finally where there was a small, struggling agricultural settlement, which was none the less a "slice of England cut from top to bottom" there is now a thriving populous colonial community. Thus all aspects of the land and life of the people bear witness to the part played by sheep in the development of Canterbury.

APPENDIX I

Year	Population	Number of Sheep	Export of Wool lbs.	Value	Total Value of Exports
				£	£
1855	5,347	220,788	410,108	20,856	43,955
1860	15,370	877,369	2,842,470	189,496	209,454
1865	*48,618	**	8,058,618	458,344	1,575,062
1870	46,801	2,965,701	12,485,720	489,938	800,349
1875	71,361	**	15,056,697	1,004,404	1,238,402
1880	104,293	3,519,404	19,851,987	873,237	1,580,238
1885	129,799	4,958,560	23,597,041	886,588	1,842,613
1890	131,447	4,307,732	***		2,876,221
1895	138,858	4,716,558			2,110,189
1900	147,509	3,951,008			3,455,861

* Estimated.

** These not available.

*** These figures only available for New Zealand as a whole.

APPENDIX II

Year	No. of holdings over 1 acre	Areas in sown grass after ploughed	Wheat acres	Total under cultivation
1870	3,244	102,366	52,425	249,318
1875	3,928	299,263	69,848	529,353
1880	5,010	542,972	193,784	1,297,605
1885	6,498	1,012,964	182,560	1,765,502
1890	7,802	1,093,920	228,734	1,943,607
1895	8,989	1,384,950	107,352	2,191,185
1900	11,086	1,419,466	147,644	2,401,435

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